IDA

INSTITUTE FOR DEFENSE ANALYSES

Report on Contractual Flow-Down Provisions in the Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS)

Mark F. Kaye, Project Leader
Daniel L. Cuda
Kevin Y. Wu

November 2017
Approved for public release;
distribution is unlimited.
IDA Paper P-8655
Log: H 17-000453

INSTITUTE FOR DEFENSE ANALYSES
4850 Mark Center Drive
Alexandria, Virginia 22311-1882

About this Publication
This work was conducted by the Institute for Defense Analyses (IDA) under contract HQ0034-14-D-0001, project number AR-7-4284, "Report on Contractual Flow-Down Provisions in the Federal Acquisition Regulations (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS)," for Defense Procurement and Acquisition Policy in the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics. The views, opinions, and findings should not be construed as representing the official position of either the Department of Defense or the sponsoring organization.

Acknowledgments
Thank you to Thomas H. Barth, Stanley A. Horowitz, and Susan L. Rose for performing technical review of this document.

For More Information:
Mark F. Kaye, Project Leader
mkaye@ida.org, (703) 575-1436

David J. Nicholls, Director, Cost Analysis and Research Division
dnicholl@ida.org, (703) 575-4991

INSTITUTE FOR DEFENSE ANALYSES

IDA Paper P-8655

Report on Contractual Flow-Down Provisions in the Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS)

Mark F. Kaye, Project Leader
Daniel L. Cuda
Kevin Y. Wu

Executive Summary

Some members of Congress perceive that general regulatory burden may deter many types of innovative firms from doing business with the Department of Defense (DoD). A specific potential concern is that prime contractors exacerbate the reluctance of firms to engage in defense business by overzealously extending regulatory requirements to subcontractors. Because of this, the Congress, in Section 887 of the National Defense Authorization Act (NDAA) for Fiscal Year 2017, directed the Secretary of Defense to conduct a review of DoD subcontract flow-down clauses for Major Defense Acquisition Programs (MDAPs). These flow-down contract clauses originate in the Federal Acquisition Regulation (FAR) and the Defense Federal Acquisition Regulation Supplement (DFARS).

The FAR/DFARS govern the contractual relationship between DoD and its direct or prime contractors, who then frequently use numerous subcontractors to create the government's desired product. In these subcontracts, necessarily related to the prime contract, certain clauses "flow down" from the prime contract as directed by the FAR/DFARS; other FAR/DFARS clauses are often incorporated in subcontracts as customary practice despite a lack of direction from the government.

The Deputy Director, Contract Policy and International Contracting, Defense Procurement and Acquisition Policy (DPAP) asked the Institute for Defense Analyses to conduct the directed review. The purpose of this project is to (1) review the possible deterrence effect of these flow-down clauses on subcontractors, particularly those subcontractors who may contribute advanced technologies and innovation to MDAPs and other defense programs, and (2) determine if there are clear misapplications of FAR/DFARS flow-down clauses in MDAPs by prime contractors that may deter firms from contributing to defense programs, and quantify the impact.

Suppliers report that flow-down clauses lead to apparent costs and delays and that these clauses are perceived as a barrier (and additional cost) to doing business with DoD. This situation is not expected to improve if the number of FAR/DFARS clauses increases. There are major technology firms that choose not to work for DoD partly because of the burdens in doing so. The impact of this has not been measured, but many believe it isolates DoD from a significant amount of innovative thinking.

In the data examined, we did not observe clear misapplications of FAR/DFARS flow-down clauses that may deter firms from contributing to defense programs; however, the

first tier MDAP subcontractors are experienced defense suppliers that strategically decided to work in the defense arena.

Subcontractor Participation and DoD Access to Advanced Research and Technology

Cases exist in which commercial firms have strategically chosen not to pursue DoD business.[1] Our research suggests that the inherent regulatory burden of FAR/DFARS flow-down clauses is one of several factors influencing firm participation—and eventually DoD access to advanced research and technology. Other factors include profit potential, market size, funding stability, intellectual property, and the complexity and length of the DoD acquisition process. It is also clear that DoD is no longer the driving force for some advanced technologies associated with relatively lucrative commercial markets. Some innovative firms have chosen to pursue advanced technology and profits in these markets rather than engage in the complexities and lesser profits of DoD business—either directly as a prime or as a subcontractor. Removing unnecessary regulatory burdens—including flow-down clauses—can assist in improving the DoD acquisition process, but further primary research is necessary to understand the motivations and concerns of firms that refuse to participate in the defense market. Perhaps more importantly, further research is required to understand the innovative opportunities that are missed.

Potential Misapplications of FAR/DFARS Flow-Down Clauses

In order to quantify the impact of FAR/DFARS flow-down clauses, we compared five prime MDAP contracts with five corresponding subcontracts. In this sample, we found no widespread practice of burdensome flow-down misapplication. However, we did find administrative errors (e.g., insertion of solicitation clauses in subcontracts), measured at 1–10 percent of the total number of flow-down clauses. Aside from possible misapplication and error, the primary driver of flow-down clauses appears to be the ever-expanding size of the FAR/DFARS, along with prime contractors' attempts to manage their large number of subcontracts through rote standardization. As part of this larger issue, a certain number of flow-downs appear driven by defensive risk management on the part of DoD and their prime contractors, as demonstrated by the significant percentage of flow-down clauses in subcontracts that are not required to be included.

---

[1] A specific example is the iRobot company of Bedford, MA. For background, see Todd C. Frankel, "Why the Maker of Roomba Vacuums is Getting Out of the Warbot Business," *Washington Post*, February 11, 2016.

Flow-Downs and Acquisition Success

All of the flow-downs appear to serve a purpose—but not necessarily related to the quality or performance of the MDAP or end product.

A sample review of flow-down provisions specifically derived from Executive Orders (i.e., non-statutory) showed that none directly affected the end product (MDAP) or its performance. In this narrow sense, all were unnecessary to the specific purpose of the MDAP. All appeared to promote various national policy needs, but these specific clauses did not have a direct relationship to the development, production, or use of the MDAP or other end product.

DoD policy is to encourage the use of commercial items in MDAPs and other programs; however, our general exploration of commercial items/commodity items in MDAPs and flow-down clauses suggests that regulatory burden even on commercial items appears to have increased, despite efforts to streamline their procurement. These general regulatory burdens plausibly counter DoD's commercial item policy. This is demonstrated by an examination of flow-down clauses created by Executive Order that promote valid national policies but have no direct relation to the development, production, or use of the system being acquired.

There are no explicitly identifiable flow-down clauses related to MDAPs—that is, FAR/DFARS clauses that must be flowed down if the program is deemed an MDAP; rather, factual circumstances and regulatory interpretation determine their application. We also found that only a small fraction of FAR/DFARS clauses appear directly related to securing military-technical protections against espionage, criminal activity, or counterfeiting. The remaining bulk of the clauses have economic, commercial, or administrative purposes but no direct relation to the performance of the end product.

Summary of Significant Observations and Major Recommendations

We have included in this paper a number of recommendations based upon our research. Here is a summary of significant observations and major recommendations:

- Observation: Some firms with advanced research and technology capabilities have chosen not to work within the defense arena.
  - Recommendation: Conduct primary research on non-participating firms that possess technologies of interest to DoD to understand incentives/ disincentives, and propose legal and regulatory changes that may encourage their participation. Issues examined should include intellectual property concerns and unstable budget environments.
- Observation: Some flow-down clauses have noteworthy national policy concerns but do not directly affect the system being acquired.

    - Recommendation: Cull FAR/DFARS of regulations that do not directly affect the quality and performance of the acquired product in order to reduce the volume of regulations and flow-downs; furthermore, restrict new regulations to those that can accelerate weapons development and production and achieve cost efficiencies.

- Observation: Scope and volume of FAR/DFARS requires firms that wish to participate in the defense market to expend resources and time, and retain specialists versed in the FAR/DFARS.
    - Recommendation: Analyze regulations in order to quantify costs to assist in reduction of FAR/DFARS clauses so as to reduce the cost of regulatory burden.

In sum, flow-downs and regulations should be analyzed and modified in the context of how they directly affect the cost, technical capability, and scheduled deployment of DoD MDAPs or other end products.

Contents

1. Introduction

A. Project Background

The Congress perceives that regulatory burden may deter many types of innovative firms from doing business with DoD and that prime contractors exacerbate the reluctance of firms to engage in defense business by overzealously extending regulatory requirements to subcontractors.

In this context, the Congress, in the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2017 (Public Law 114-328), Section 887(a), required the Secretary of Defense to:

> conduct a review of contractual flow-down provisions related to major defense acquisition programs on contractors and suppliers, including small businesses, contractors for commercial items, nontraditional defense contractors, universities, and not-for-profit research institutions.

As directed by Section 887(b), the Department of Defense (DoD) asked the Institute for Defense Analyses (IDA) to conduct the required review, specifically to:

a. Identify Federal Acquisition Regulation/Defense Federal Acquisition Regulation Supplement (FAR/DFARS) flow-down provisions[1] related to major defense acquisition programs (MDAPs).[2]

b. Identify FAR/DFARS flow-down provisions critical for national security related to MDAPs. National security will be generally considered as defined in the *DoD Dictionary of Military and Associated Terms*, Joint Publication 1-02, 8 November 2010 (as amended through 15 February 2016) as determined by the analysis.

c. Determine if there are instances in which flow-down clauses in contracts between DoD and prime contractors have been misapplied to the prime's subcontractors through sampling of a limited number of MDAPs. The focus will be on clear misapplications and not administrative or extraneous misapplications, due to schedule and resource limits.

---

1 This paper will use the term *clause*, as clauses refer to contractual obligations whereas the term *provisions* refers to solicitation requirements.

2 MDAPs are defined in 10 U.S.C. 2430. Active MDAPs are listed on DoD's Defense Acquisition Management Information Retrieval (DAMIR) system website.

d. Explore the applicability of FAR/DFARS flow-down provisions for the purchase of commodity items that are acquired in bulk for multiple MDAPs.

e. Determine if there are any non-statutory unnecessary burdens of flow-down provisions on the supply chain. IDA will define "unnecessary" burdens as provisions that do not affect the qualities or attributes of the end product. IDA will utilize the sample obtained for task c, above.

f. Conduct literature reviews in order to help determine the effect, if any, of FAR/DFARS flow-down provisions on the participation/non-participation rate of small businesses, contractors for commercial items, universities, and not-for-profit research organizations in MDAPs.

g. Conduct literature reviews in order to help determine the effect, if any, of FAR/DFARS flow-down provisions for DoD MDAPs in terms of access to advanced research and technology capabilities available in the private sector.

B. Defining FARS, DFARS, and Contract Flow-downs

The FAR and its specified contract clauses control and shape most acquisitions by US government executive branch agencies. Broadly stated, the FAR is a publicly accessible set of rules that controls almost all US government contracting with the global commercial economy. It is a codification of general and permanent rules or regulations published by executive branch departments and agencies in the Code of Federal Regulations (CFR). The FAR represents parts 1 through 53 of Title 48 of the CFR.[3]

Most federal agencies—including DoD—have their own unique supplements to the FAR. DFARS implements FAR policies and procedures and supplements the FAR to meet DoD-specific needs.[4] DFARS contains authorized deviations from the FAR as well as requirements of law, DoD-wide policies, etc. DFARS needs to be read in conjunction with the FAR, as the FAR is the primary set of acquisition rules.[5]

When federal agencies undertake acquisitions, the FAR provides the basis for contract clauses that form the legally enforceable agreement between the US government and a private contractor. In turn, when this same private contractor contracts with another firm to help execute the government's contract, this second firm becomes a US government

---

3 The FAR is available at "Federal Acquisition Regulation (FAR)," Acquisition.gov, https://www.acquisition.gov/browsefar.

4 Kate M. Manuel et al., "The Federal Acquisition Regulation (FAR): Answers to Frequently Asked Questions," R42826 (Washington, DC: Congressional Research Service, February 3, 2015). 17, https://fas.org/sgp/crs/misc/R42826.pdf.

5 DFARS is available at "Defense Federal Acquisition Regulation Supplement (DFARS) and Procedures, Guidance, and Information (PGI)," DPAP, http://www.acq.osd.mil/dpap/dars/dfarspgi/current/. DFARS is often accompanied by procedures, guidance, and information (PGI) memos.

subcontractor. The first firm is identified here as the prime contractor. The prime contractor, in their contract with the subcontractor, will "flow-down" a number of the original contract clauses from the government contract. These are referred to hereafter as flow-down clauses. In general, our research seeks to understand the impact of these government flow-down clauses on actual and potential government subcontractors.

C. Analytical Approach

The NDAA review language focused on subcontractors and their contributions to the overall excellence of DoD military technical systems. These contributions are overwhelmingly regulated by the contractual relationship between the prime and subcontractor but are nevertheless shaped by FAR/DFARS flow-down clauses. Our analytical approach to this general issue and the specific areas of emphasis described by the NDAA began with first understanding the dynamic nature of the FAR/DFARS themselves. These regulations are living documents updated monthly. We established the December 2016 version of the FAR/DFARS as our baseline. Given their importance to commercial industry, contracting departments within commercial defense companies specialize in FAR/DFARS interpretation and application to DoD contracts. In turn, the FAR/DFARS have generated a broad set of written literature. The research team first examined this literature and then proceeded to interview government and commercial FAR/DFARS specialists with an emphasis on commercial prime and subcontractors. These interviews sampled current FAR/DFARS application and practice, solicited commentary on administrative burdens, and worked to understand subcontractor participation in DoD projects that addressed wider congressional concerns. Finally, the IDA team obtained copies of specific contracts between prime contractors and the government and then obtained related subcontracts to sample the practice of flow-down clauses over a range of MDAP types.

D. Source Data

We have three sources of data and information for this paper. First, we examined prior academic and commercial trade literature in and around the general subject area. We used a variety of subscription databases and publicly available information. Such information was instructive for understanding legal and business implications of FAR/DFARS flow-down clauses. Overall, the literature specifically addressing flow-down clauses is a relatively limited subset of the wider literature of FAR/DFARS and government contracting. Second, we employed qualitative research methods to supplement our literature review by interviewing industry and government representatives to gain practical insights. Last, we obtained copies of prime contracts from DoD for a small number of MDAPs and then contacted the prime contractors to obtain a small sample of subcontracts

pertaining to each prime MDAP contract. Each subcontract required non-disclosure agreements (NDAs) with the prime.

2. Flow-Down Clauses

FAR/DFARS flow-down clauses derive from the situation that most of the cost of an MDAP is driven by subsystems and components provided by subcontractors[6] to the prime contractor. It is not unusual for the prime contractor to only account for 10–20 percent of the total MDAP cost. Subcontractors—inclusive of basic parts and material suppliers that feed the upper tiers of the supply chain—account for the bulk of the defense industrial base.[7] MDAP prime contractors are often viewed as integrators of systems and parts and not necessarily as weapons manufacturers.[8]

To produce and deliver an MDAP to DoD, prime contractors enter into contracts with an array of firms. The vast majority of MDAP prime contractors are well known major defense firms. The first tier of subcontractors are a diverse group of firms—it is not uncommon for some of the key first-tier subcontractors to be other large defense or industrial manufacturers. Below the first tier subcontractors are additional tiers that provide sub-components, parts, commodity type items (e.g., fasteners), and various basic materials. The subcontractors will often have contractual arrangements among themselves (e.g., a first tier provider of a major subsystem will obtain parts from a second tier and, in turn, the second tier parts firm will obtain raw materials from a third-tier firm).

The government nominally has no role in these subcontracts. By well-established legal precedents, the US government has no "privity of contract"[9] with any of the two parties in a subcontract. The subcontract is viewed in the courts as exclusively between the commercial prime contractor and their subcontractor. In practice, subcontracts[10] under a

6 *Subcontractor* is generally defined as any firm that supplies materials or provides services for a prime contractor or for a higher tier subcontractor (FAR 44.101).

7 Jacques S. Gansler, *Democracy's Arsenal: Creating a Twenty-First-Century Defense Industry* (Cambridge, MA: The MIT Press, 2011), 132–133.

8 Ibid. The following are estimates on costs driven by subcontractors of all tiers: (1) ships: 82–88 percent, (2) missiles: 70–80 percent, and (3) fighter aircraft: 80 percent; Government Accountability Office (GAO), "DEFENSE ACQUISITIONS: Additional Guidance Needed to Improve Visibility into the Structure and Management of Major Weapon System Subcontracts," GAO-11-61R, October 28, 2010 (draft), http://www.gao.gov/assets/100/97156.pdf.

9 The US government is not a direct party to the subcontract.

10 *Subcontract* in this context is related to purchase of good or services substantially or directly related to the performance of the MDAP prime contract.

DoD prime contract are “hybrid” contractual documents.[11] They are combinations of clauses from the Uniform Commercial Code (UCC) as enacted by the various states (e.g., California, Connecticut, etc.), industry-preferred commercial clauses, and governmental clauses. Although the US government disclaims any direct responsibility or liability for subcontracts, it does maintain a measure of control by both maintaining the right to approve subcontracts themselves and to direct the introduction of the flow-down clauses.[12] The clauses themselves are contained in FAR Part 52[13] and DFARS Part 252.[14]

The most common means of government control over subcontracts is through its mandatory flow-down contract clauses. These are clauses the government insists will be placed in almost all subcontracts with only limited exceptions.[15] These clauses are written and mandated to protect the government’s rights and interests within the overall project. They can serve to promote formal national security interests such as preventing espionage and business fraud, but also to shape procurement practices and promote socio-economic policies.[16] Congressional interest has been piqued by the flow-down of product-unrelated government policy items such as:

- **52.237-11 Accepting and Dispensing of $1 Coin (Sept 2008)**. All business operations conducted under this contract that involve coins or currency, including vending machines, shall be fully capable of accepting $1 coins in connection with such operations.
- **52.223-18 Encouraging Contractor Policies to Ban Text Messaging While Driving (Aug 2011)**. The Contractor is encouraged to adopt and enforce policies that ban text messaging while driving.
- **52.204-10 Reporting Executive Compensation and First-Tier Subcontract Awards (Oct 2016)**. First-tier subcontract information… with a value of $30,000 or more, the Contractor shall report the information at http://www.fsrs.gov for that first-tier subcontract.

---

[11] Steven W. Feldman, *Government Contracts Guidebook*, 4th ed., 2008–2009 (Toronto: Thomson Reuters, 2009), 245–7. The primary body of governing law for subcontracts is commercial contract law—generally expressed in individual State UCC.

[12] For example, subcontracts identified by the contracting officer as of a critical nature or high value, in order to protect the government’s interests (FAR 44.201).

[13] FAR Part 52: Solicitation Provisions and Contract Clauses. This is a matrix of provisions and clauses with reference to the particular CFR Title 48 section that prescribes a particular provision or clause.

[14] DFARS Part 252: Solicitation Provisions and Contract Clauses.

[15] In theory, FAR/DFARS flow-downs can extend to an infinite tier of subcontractors. The limited exceptions are contained in the FAR/DFARS themselves.

[16] Feldman, *Government Contracts Guidebook*, 254.

The legal literature and commentary does make a distinction between mandatory flow-down clauses and non-mandatory flow-down clauses. While this is a relevant legal distinction in drafting subcontracts, for the purposes of this research, it is less relevant.[17] The mandatory flow-down clauses are certainly non-negotiable and must be flowed-down.[18] But some of the non-mandatory clauses can be as important in terms of promoting government policy,[19] ensuring that the subcontractor will provide adequate support or cooperation to enable the prime contractor to meet its contractual obligations, or in protecting the prime's financial position vis-à-vis subcontractors from unilateral government action.[20] The architecture of clauses in a subcontract is a result of the prime contractor's contracting personnel, industry practice, and government mandates and emphasis, along with the negotiating positions of the prospective subcontractor.

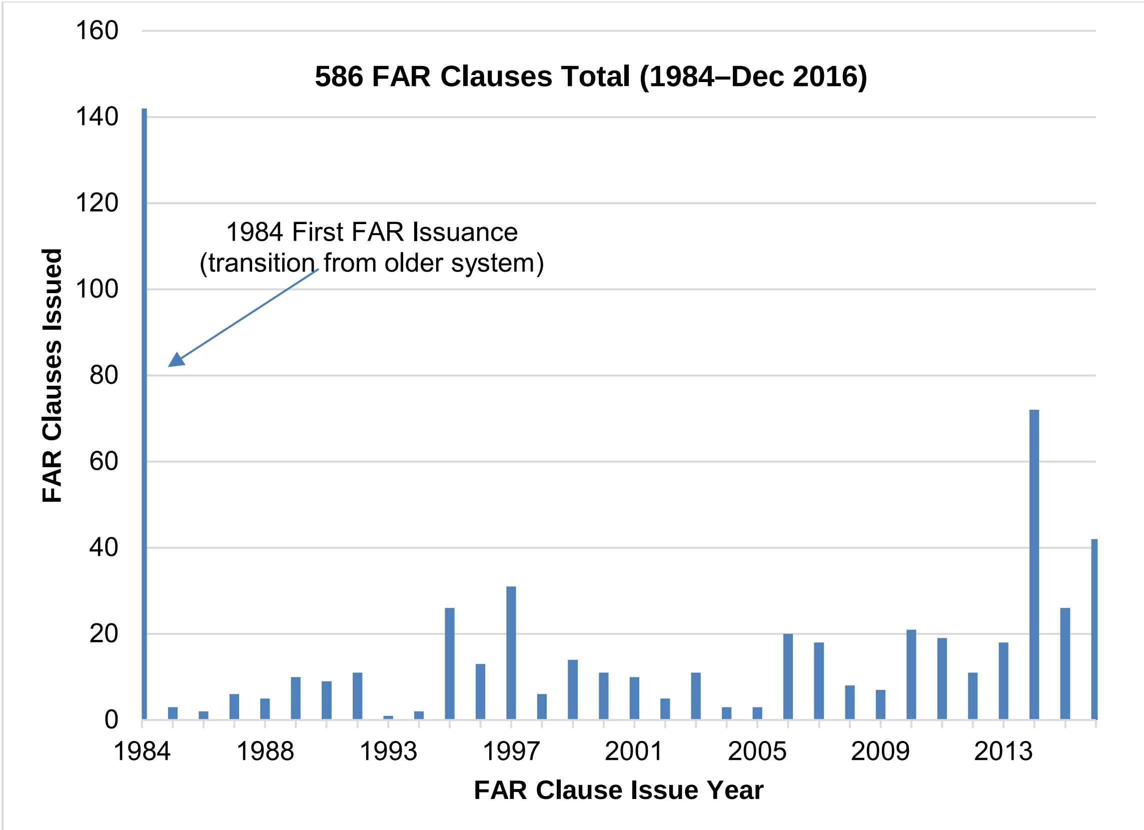
Among congressional concerns, there are additional suggestions of a growing quantity of FAR/DFARS clauses increasing the size of flow-down contracts. As determined on the basis of clause change date, Figure 1 and Figure 2 show the latest issue dates for 586 current FAR clauses and 377 DFARS clauses, respectively. Figure 1 shows a large number of clauses revised in 1984 due to the evolution of the FAR system in the early 1980s from the older Armed Forces Procurement Regulations. Since that time, generally between 1 and 30 FAR clauses have been issued, modified, or amended annually. The exception was a post-1984 high point in 2014 with approximately 50 clauses either changed or newly issued. The trend of issues from 2014 to 2016 appears to be departing from the historical norm. This period is too short to make firm conclusions, but is suggestive of concern expressed in the NDAA.

[17] The literature and legal professional materials also note that clauses may be flowed down by reference (e.g., FAR part number), full text of the FAR/DFARS clause, and substantially the same as the FAR/DFARS clause. While important for legal drafting, it is not relevant to this research.

[18] Some examples of mandatory clauses that could be included in a subcontract are FAR 52.203-7: Anti-kickback Procedures, and FAR 52.215-23: Limitations on Pass-Through Charges.

[19] E.g., FAR 52.225-1: Buy American.

[20] E.g., FAR 52.249-2: Termination for Convenience of the Government. If the prime does not include this clause in its subcontract, it will not have a right to terminate the subcontract.

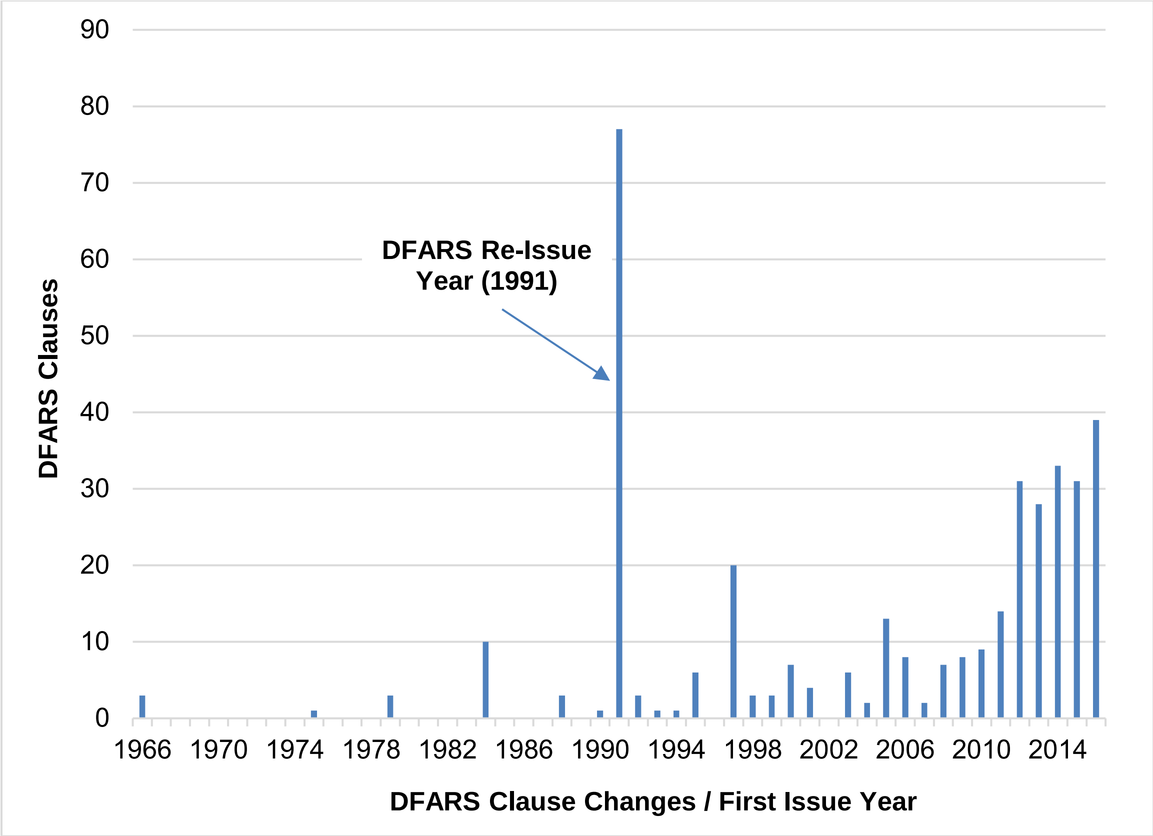


Source: Richard Ginman, *A Study of the Applicability of Federal Acquisition Regulation (FAR) Clauses to Subcontracts under Prime Defense and NASA Contracts* (Arlington, VA: National Defense Industrial Association (NDIA), 2016).

Figure 1. Basic FAR Clause Issue Data

DFARS issue or re-issue dates shown in Figure 2 suggest extensive efforts to revise its clauses since approximately 2008. The chart displays the changing number of clauses by year—the data do not distinguish between new issues and re-issues. The chart shows an overwhelming spike of issues around 1991. These issues were connected with the July 1989 Defense Management Report, which "concluded that much of the stifling burden of Department of Defense (DoD) regulatory guidance, including the Defense Federal Acquisition Regulation Supplement (DFARS) was self-imposed."[21] After this activity, between 1991 and 2008 there were occasional spikes of activity with otherwise relatively small numbers of annual revisions. However, after 2008, the rate of issue or revision increased notably, and in the period since 2012, each year exceeds all other issue years except for 1991.

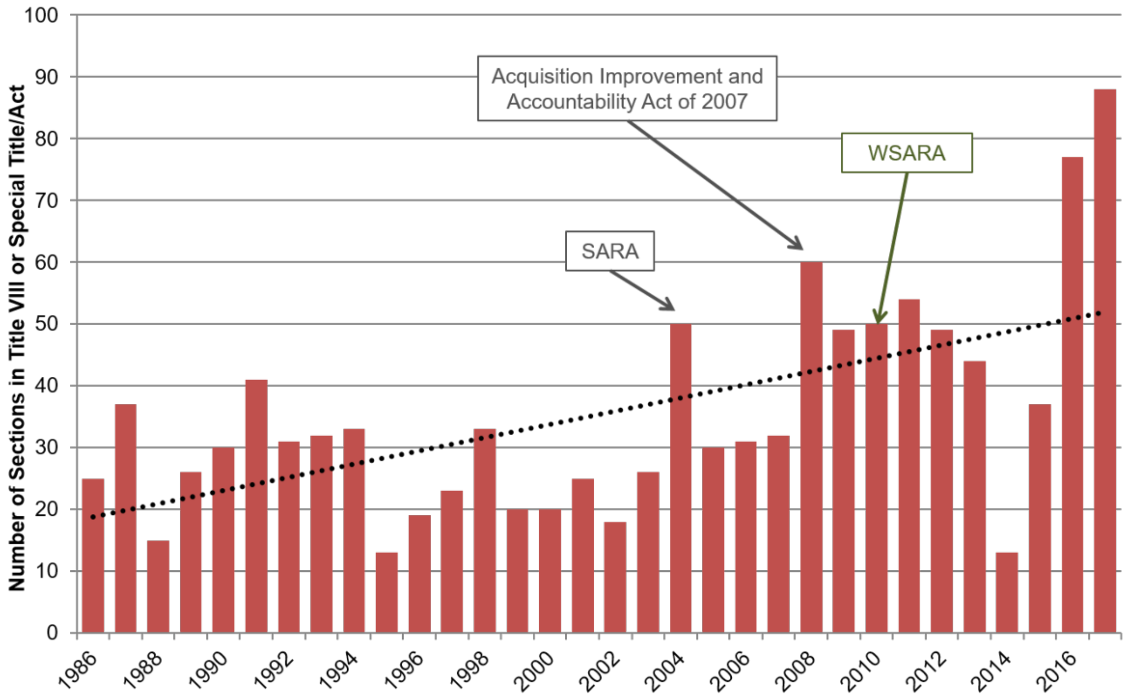
[21] 56 Fed. Reg. 36280 (Jul. 31, 1991), https://cdn.loc.gov/service/ll/fedreg/fr056/fr056147/fr056147.pdf.



Source: Ginman, *A Study of the Applicability of Federal Acquisition Regulation (FAR) Clauses to Subcontracts.*

Figure 2. Basic DFARS Clause Issue Data

Statutes are a rich source of new regulations. NDAA Title VIII is the ordinary source for statutory changes to the DoD acquisition and contracting regulations and the CFR. Final publication in the CFR represents a formal change to the FAR/DFARS. In addition to NDAA Title VIII, specific legislation can also lead to FAR/DFARS changes. Figure 3 also counts the number of sections in specific legislation such as the 2009 Weapon Systems Acquisition Reform Act (WSARA), Services Acquisition Reform Act (SARA), and the Acquisition Improvement and Accountability Act of 2007. The assumption here is that the greater number of sections of either the annual NDAA Title VIII or specific legislation, the more likely a change to the FAR/DFARS is likely to occur. Figure 3 shows the trend line for the total number of sections.



Source: David M. Tate, IDA, NDAAs 1986–2017 Title VIII and legislative sections.

Figure 3. NDAA and Policy Direction Sections

3. Review and Analysis

A. Flow-Down Clauses Applicable to MDAPs

The NDAA directed this research to be limited to flow-down provisions passing through MDAPs. MDAPs are explicitly defined in statute either by financial size of the program or a designation by senior DoD acquisition leadership. Defined more broadly, MDAPs represent the most important class of DoD acquisitions. These programs include the development and procurement of combat ships, technologically advanced unmanned and manned aircraft, new munitions, networked software, technologically enhanced combat vehicles, and military satellite and communications systems. A key feature of these systems is the combined process of custom development and production by private industry operating under contract with DoD. The specification of contract provisions and their flow-down clauses are inherently shaped by the FAR/DFARS. However, we find little correlation between mandatory and customary flow-down clauses and program status as an MDAP. There exists no master list of flow-down clauses that exclusively apply to MDAP programs in every situation.[22]

For this reason, the IDA research team chose to focus less on the literal definition of an MDAP and instead on its sense as an important, significant purchase by DoD. An MDAP acquisition and its use of flow-down provisions for subcontractors are in no way analogous to the simple purchase of a commercial item by DoD. Since there is little correlation between MDAP status and flow-down clauses, this effort examined all flow-down clauses in the FAR/DFARS.[23]

B. Flow-Down Clauses Applicable to National Security

The NDAA directed that FAR/DFARS flow-down clauses critical for national security be identified. This focus is consistent with the concerns of the Congress that the very complexity of the FAR/DFARS reduces desirable participation by candidate DoD subcontractors. For the Congress to seek to reduce the number of provisions, it must have

---

22 National Contract Management Association (NCMA), "Prime Contractor/Subcontractor Relationships: New Developments and Continuing Issues," PowerPoint presentation, William Weisberg and Joyce Tong Oelrich, July 2014, http://resources.ncmahq.org/chapters/greenville/Lists/Announcements /Attachments/20/NCMA%20-%20Prime%20and%20Sub%20Relationships.pdf.

23 We utilized FAR as of January 1, 2017. Commerce Clearing House (CCH), 2017.

a relative sense of the provisions' importance and impact. However, the NDAA offers no additional guidance or definitions to assist with this categorization effort.

National security is a broad term that has many exemplary definitions. In the *DoD Dictionary* definition,[24] the first clause indicates a degree of national security is obtained by gaining "a military or defense advantage over any foreign nation or group of nations." This sense of relative advantage can be used to help classify the FAR/DFARS provisions, with regard to a DoD MDAP with superior military technology. Other military capability elements being equal (personnel, leadership, training, logistics, etc.), superior military technology fielded in sufficient numbers can be expected to yield US national security advantages. Guarding the information basis of this technology maintains the US advantage. The industrial security processes (including cybersecurity) against espionage in all its forms help to maintain the US relative technological advantage and are clearly critical to national security. In a similar vein are those FAR/DFARS provisions supporting the regulation of defense technology sharing such as International Traffic in Arms Regulations.

A variation on this sense of maintaining military technical advantage is the assurance that these advantages are real and available to American forces when required. Counterfeit parts introduced into the MDAP acquisition process are a form of fraud and can cripple otherwise useful military technologies. Unless identified as early as possible, counterfeit parts in the acquisition or logistics supply chain may promise a set of expected military advantages, but when put into actual use may cause failure in battle. Extending this line of thought further on the theme of fraud, those FAR/DFARS provisions that prevent fraud in the acquisition process are a means of preventing business deceptions. These deceptions possibly remove, or at least delay, the procurement of military advantages and arguably should be included as critical to national security. The IDA research team utilized these criteria and reviewed all FAR/DFARS flow-down provisions on this basis, identifying 65 flow-down provisions (roughly 5 percent of 963 FAR/DFARS clauses) consistent with the NDAA terminology of "critical to national security." Appendix A provides the list of identified clauses.

To bring additional insight to the FAR/DFARS, we attempted an ad hoc classification of the clauses by general category (e.g., national security, contract management, and socio-economic policy). While this effort was outside of the specific research scope, we thought it might provide some additional context. Appendix B contains this classification.

---

[24] *DoD Dictionary of Military and Associated Terms*, 162, http://www.dtic.mil/doctrine/new_pubs /dictionary.pdf. "National Security: A collective term encompassing both national defense and foreign relations of the United States with the purpose of gaining: a. A military or defense advantage over any foreign nation or group of nations; b. A favorable foreign relations position; or c. A defense posture capable of successfully resisting hostile or destructive action from within or without, overt or covert."

C. Potential Misapplication of MDAP Flow-Down Clauses

A nearly universal commercial attitude toward government contracts and their associated FAR/DFARS clauses is one of burden. They are perceived to impose administrative burden on both primes and subcontractors, and set government and DoD apart from other commercial partners. Yet the FAR/DFARS exist to fulfill legitimate government purposes. Beyond this, the NDAA expresses the concern that some FAR/DFARS clauses are inappropriately applied to subcontractors—that there is a clear misapplication of mandatory and customary clauses by prime contractors to their subcontractors. The working hypothesis suggested by the NDAA is that primes are reacting to US government contracting officers who are using standard sets of clauses (1) disconnected from the factual situation of the MDAP, or (2) to simply avoid risk by adding extraneous clauses; in turn, prime contracting personnel are seeking to eliminate or minimize risk exposure by flowing down the proverbial "kitchen sink" of clauses.

To address this hypothesis, the research team worked with a set of major defense contractors with whom DoD has contracted to develop and produce a diverse set of MDAPs—Raytheon, General Atomic, BAE, General Electric, and General Dynamics.[25]

The research team requested from the participating contractors that they allow us to obtain copies of their first-tier subcontracts.[26] These subcontracts were limited to one major program per contractor. Proprietary data issues were addressed by non-disclosure agreements with all firms. Discussions with the primes revealed that all five utilize standardized contracts for dealing with their first-tier subcontractors; therefore, the same set of FAR/DFARS clauses and other commercial terms were flowed-down to all first-tier subcontractors.

Table 1 shows FAR flow-down clauses in each subcontract in the wider context of the total FAR clauses in the prime contract (first row). Total subcontract clauses by MDAP contract are shown in the second row, together with the percentage of this number relative to the number in the first row. This total number of subcontract clauses is broken down between the number of clauses that are actual flow-downs from the prime contract (third row) and those typically flowed from prime contract Terms and Conditions unrelated to the US government-associated flow-down clauses (fourth row).

---

[25] The largest US defense firm, the Lockheed Martin Corporation (LMC), declined to participate in the research. LMC indicated they would participate in the research if their MDAP contracts were modified to cover the increased scope of work entailed by this effort; however, the responsible command with budget authority declined. To our knowledge, the prime contractors who did participate did not make similar requests.

[26] Obtained from DAMIR.

Table 1. FAR Prime Contract Clause Flow-Downs

Statistic	MDAP 1	MDAP 2	MDAP 3	MDAP 4	MDAP 5
Total Number of FAR Clauses in Prime	**123**	**73**	**140**	**76**	**99**
Total Number of FAR Clauses in Subcontract (Percent of Prime Contract Clauses)	**97 (79%)**	**110 (151%)**	**81 (58%)**	**78 (103%)**	**83 (84%)**
Specific FAR Clauses in DoD Prime Flowed-down to Subcontractor	70	43	51	39	80
Additional FAR clauses from Prime Terms & Conditions to Subcontractor	27	67	30	39	3

For example, under MDAP 1, a total of 123 FAR clauses were present in the prime contract, 70 of which then became clauses identifiable in the prime's subcontracts. In addition to these 70, 27 FAR clauses were also present in the subcontracts—additional FAR clauses from the prime contract's standard Terms and Conditions.[27] Together, these two sources generated a total of 97 FAR clauses identifiable in the subcontract. This total of 97 represented 79 percent of the total FAR clauses contained in the prime contract.

The construction of Terms and Conditions varies by firm and their internal contracting practices, but the prime's Terms and Conditions can be a significant source of subcontract FAR clauses.[28] MDAP 2 and its unidentified prime contractor placed a significant number of clauses in its subcontract and then added more from Terms and Conditions—as a result, for MDAP 2, the total number of clauses in its subcontract represented 151 percent of the total number of clauses in its own prime contract. Terms and Conditions generated more clauses than the original contract itself.

Considering the sample size and research limitations, it is difficult to categorize the variation in quantity of FAR clauses flowed down to subcontractors. Discussions with government and private sector contracting personnel suggest the primary drivers are (1) prime corporate legal and risk management policies; (2) need for contract standardization since primes often have thousands of contracts; and (3) specialization of firms in the defense industry (especially the prime to first-tier sample) that have financial, accounting, legal, and other compliance systems in place to manage US government/DoD contracting requirements, regardless of whether the firm is a prime or subcontractor—and

[27] The clauses in the prime's Terms and Conditions were direct references to FAR/DFARS clauses.

[28] We did not address Uniform Commercial Code (UCC) and other commercial terms, as they are outside the scope of this research effort.

therefore are accustomed to a significant number of FAR/DFARS clauses and generally accept them.

A legal principle called the Christian Doctrine[29] was also noted by some contracting experts. A Federal Court of Appeals ruled that a mandatory contract clause that conveys a deeply ingrained strand of public procurement policy is considered to be included even if it is not in the agreement between the US government and the contractor. The same experts noted that, in addition to the reasons cited in the preceding paragraph, the primes may add flow-down clauses to their Terms and Conditions in view of the Christian Doctrine. For example, if the US government or DoD contracting officer unintentionally omitted a mandatory clause, the prime will still be bound by the omitted FAR/DFARS clause. Thus, as corporate protection vis-à-vis its subcontractors, the prime will include all mandatory clauses in its Terms and Conditions. Although this subject matter is outside the scope of this research, this legal doctrine—established via federal court ruling—should be acknowledged when examining flow-down clauses.

Once the research team had defined the set of contracts/subcontracts and their respective clauses, we analyzed the nature of the clauses themselves to ascertain if any of the FAR flow-down clauses were misapplied by the primes to their subcontractors. As noted earlier, the focus was on clear misapplications and not administrative error or extraneous contracting oversights. An administrative error was judged by evaluating the clause in light of the overall context of the contract and the likely work it generated to achieve compliance. If an included clause was irrelevant to the contract and it required no work to achieve compliance, it was evaluated as an error. Alternately, if review of the contract clause found no government interest in its actual application and its compliance generated work on behalf of the contractor, the clause was judged a "clear misapplication."

To assist in this analysis, we used Ginman's categorization of FAR and DFARS clauses as "mandatory," "optional," or "neither mandatory nor customary."[30] Mandatory clauses are those required to be flowed-down to subcontractors. Non-mandatory clauses—the legal literature often refers to such clauses as "discretionary" or "recommended"—Ginman calls "optional." While such clauses may also be referred to as "non-mandatory" (i.e., not specifically required by the FAR/DFARS), the practicalities of contract and financial management, adherence to US laws and regulations, and need for the prime contractors to protect their legal, financial and reputational interests deem large numbers of these so-called "non-mandatory" clauses to be effectively required. In this paper, we

---

[29] *G.L. Christian & Assocs. v. United States*, 312 F.2d 418 (Ct. Cl. 1963).

[30] The categorization was implemented by ADM (ret) Richard Ginman and published by NDIA. ADM Ginman gave us permission to use his 2016 publication, *A Study of the Applicability of Federal Acquisition Regulation (FAR) Clauses to Subcontracts under Prime Defense and NASA Contracts*, http://www.ndia.org/issues/acquisition-reform/order-ndia-far-flowdown-book, for this paper.

refer to such clauses as "customary" rather than "optional," since the primes require these clauses to produce the MDAP while adhering to US government laws and regulations in a manner that protects the prime contractors' legitimate interests. The third category—"neither mandatory nor customary"—consists of clauses deemed not required to be flowed-down to subcontractors.

You may recall that in Table 1, the third row indicates the number of DoD-Prime FAR contract clauses that were flowed down to the subcontractors (e.g., for MDAP 1, there were 70 such clauses). In Table 2, we take those clauses and apply Ginman's analytical tool to break down the DoD-Prime FAR clauses that were flowed down to subcontractors into our three categories (mandatory, customary, and neither mandatory nor customary). We also include another row entitled "Solicitation Provisions"[31] and conclude with a summary row entitled "Misapplications."

Table 2. FAR DoD-Prime Clauses Flowed Down from Prime to Subcontractor

	MDAP 1	MDAP 2	MDAP 3	MDAP 4	MDAP 5
Total	**70**	**43**	**51**	**39**	**80**
Mandatory	42 (60%)	25 (58%)	30 (59%)	25 (64%)	33 (41%)
Customary	22 (31%)	16 (37%)	13 (25%)	11 (28%)	30 (38%)
Neither Mandatory nor Customary	6 (9%)	2 (5%)	7 (14%)	3 (8%)	17 (21%)
Solicitation Provisions	0	0	1 (2%)	0	0
Misapplications*	**4 (6%)**	**0**	**1 (2%)**	**0**	**0**

*Flow-downs that appear to be administrative error or contract drafting oversight, not necessarily a clear misapplication.

In analyzing if there were clear misapplications, we examined all of the clauses that are not categorized as mandatory to determine if they appeared to be reasonable or within the realm of expected FAR clauses when considering the subject matter of the MDAP. Due to research constraints, we were not able to analyze each FAR clause in exacting detail. Such an intensive analysis may be extremely challenging, if not impractical, as we did not have insight into the prime-subcontractor negotiations, past histories between the firms, MDAP program specifics, prime corporate policies on legal and risk management, and a host of other variables. Therefore, our approach was one of general reasonableness within the general construct of the prime MDAP contract type, size of the contract, and

[31] We included this row in the analysis because we came across a number of solicitation provisions that were apparently unintentionally flowed down from the prime to the subcontractor.

recognition that the subcontractors are first-tier and almost certainly have ample negotiating abilities and resources.[32]

As can be seen in Table 2, only two of the five MDAP subcontracts examined were assessed as having misapplications; however, even these are not clear misapplications. MDAP 1 contained the most clauses assessed as misapplication (four, or 6 percent) and MDAP 3 had one solicitation provision. We considered the bulk of neutral FAR clauses—neither mandatory nor customary—as benign, and therefore not clear misapplications according to the reasonableness standard described above.[33]

We next reviewed those FAR clauses incorporated by reference or verbatim[34] in the primes' Terms and Conditions[35] that are accepted by the subcontractors. We found the primes' Terms and Conditions to be an unexpected source of additional FAR clauses that were included in the prime-to-subcontractor agreements.

As shown in Table 3, the misapplication totals in the Terms and Conditions are larger than those in the contracts, using the same methodology described above. Clause misapplication was as high as 19 percent in MDAP 1, but assessed as below 10 percent in MDAPs 2, 3, and 4, and zero for MDAP 5. Once again, pursuant to a reasonableness standard (and considering the other factors noted), we did not observe clear misapplications of flow-down clauses. The misapplications that appeared were mainly nuisance clauses; i.e., primarily solicitation provisions that were apparently inadvertently captured in standardized agreements.

---

[32] At least two of the subcontractors are major US defense contractors (and primes on other DoD MDAPs) and others are publicly listed manufacturing firms with global operations.

[33] We identified a small number of clauses that were not solicitation provisions for MDAP 1 that seemed inapplicable; however, the appearance was more of administrative error or extraneous clauses of no importance. For example, FAR 52.237-02 (Protection of Government Buildings, Equipment and Vegetation) seems not applicable in view of the nature of the contract; and 52.242-03 (Penalties for Unallowable Costs) deals with indirect rates and is not considered a flow-down clause.

[34] An indication of the specialization in DoD business or strong familiarity in contracting with the US government is that incorporation of FAR clauses in the subcontracts was by reference. That is, only the FAR clause and title were listed, without clause language or reference to FAR clause prescription contained elsewhere in the FAR.

[35] Primes' Terms and Conditions refer to the obligations accepted by the parties via private contractual arrangement. As noted earlier, most commercial contracts are governed by the UCC. The contracts we examined are a hybrid of UCC and FAR/DFARS.

Table 3. FAR Clauses Flowed Down from Prime to Subcontractor via Primes' Terms and Conditions

	MDAP 1	MDAP 2	MDAP 3	MDAP 4	MDAP 5
Total	**27**	**67**	**30**	**39**	**3**
Mandatory	17 (63%)	22 (33%)	17 (57%)	26 (67%)	0 (0%)
Customary	4 (15%)	30 (45%)	10 (33%)	7 (18%)	3 (100%)
Neither Mandatory nor Customary	1 (4%)	9 (13%)	1 (3%)	3 (8%)	0
Solicitation Provisions	5 (19%)	6 (9%)	2 (7%)	3 (8%)	0
Misapplications*	**5 (19%)**	**6 (9%)**	**2 (7%)**	**3 (8%)**	**0**

*Flow-downs that appear to be administrative error or contract drafting oversight, not necessarily a clear misapplication.

For both sets of FAR flow-down clauses examined—set of clauses from DoD that the prime passed to the subcontractors and the set that the primes appropriated from the FAR and flowed down—we did not observe clear misapplication of FAR clauses. Since the parties to the subcontract agreements are veteran DoD contractors, we can assume that they are sophisticated in such matters, regularly deal with each other concerning MDAPs, and therefore have refined their legal processes to reflect the realities of DoD contracting.

We continued our examination of flow-down clauses by analyzing DFARS clauses utilizing the same methodology and analytical approach as with the FAR clauses. The results were comparable to the FAR flow-downs. Flow-down of prime contract clauses were sometimes less than the total clauses in the prime contract, but, again, flow-down of Terms and Condition clauses proved highly variable. As shown in Table 4, the prime contractors for MDAP 2 and MDAP 4 made extensive use of the Terms and Conditions section of their contracts to generate subcontractor clauses.

Table 4. DFARS Prime Contract Clause Flow-Downs

	MDAP 1	MDAP 2	MDAP 3	MDAP 4	MDAP 5
Total Number of DFARS Clauses in Prime	**93**	**35**	**78**	**41**	**56**
Total Number of DFARS Clauses in Subcontract (Percent of Prime Contract)	**88 (95%)**	**74 (211%)**	**55 (71%)**	**64 (156%)**	**46 (82%)**
Clauses in DoD-Prime Flowed Down to Subcontractor	60	26	38	18	41
Additional DFARS Clauses from Prime Terms & Conditions to Subcontractor	28	48	17	46	5

We scored DFARS clause misapplications with results similar to those obtained for FAR clauses. Misapplications were present, yet were of small numbers, and we did not observe clear misapplications. However, another interpretation of these data is worth addressing—whether the intent of misapplication scoring is to help understand the discretionary dimension of subcontracting; that is, to understand if prime contractors might be burdening subcontractors with flow-downs either to reduce their own contract risk with the government or from a misunderstanding of government intent. This is a broader interpretation of “misapplication”; the data can be interpreted to mean that prime contractors used their discretion to make misapplications, but that this discretion included clauses that were judged to be neither mandatory nor customary. This broader interpretation suggests there is an element of independent choice among prime contractors regarding their imposition of subcontract clauses in their subordinate contracts. In evaluating these additional clauses, all appear appropriate and justified, but this wider interpretation does help scope the dimension of the broader problem to include prime contractor discretion.

Table 5 summarizes DFARS clauses from the DoD-Prime MDAP contracts that were flowed down to the first-tier subcontractors. The pattern and results mirror those of the FAR clause flow-downs (i.e., no clear misapplications and solicitation provisions being the prime generator of apparent administrative error).

Table 5. DFARS DoD-Prime Clauses Flowed Down from Prime to Subcontractor

	MDAP 1	MDAP 2	MDAP 3	MDAP 4	MDAP 5
Total	**60**	**26**	**38**	**19**	**41**
Mandatory	34 (57%)	14 (54%)	20 (53%)	9 (47%)	19 (46%)
Customary	16 (27%)	6 (23%)	13 (34%)	5 (26%)	13 (32%)
Neither Mandatory nor Customary	10 (17%)	4 (15%)	3 (8%)	4 (21%)	8 (20%)
Solicitation Provisions	0	2 (8%)	2 (5%)	1 (5%)	1 (2%)
Misapplications*	**4 (7%)**	**2 (8%)**	**2 (5%)**	**1 (5%)**	**1 (2%)**

*Flow-downs that appear to be administrative error or contract drafting oversight, not necessarily a clear misapplication.

As with the FAR clauses, the primes also apparently used their discretion and included DFARS clauses that are neither mandatory nor customary; however, utilizing the reasonableness standard, we did not observe clear misapplications. The clauses appear harmless and may even facilitate contract management.

Last, the DFARS clauses included in the primes’ Terms and Conditions—but not in the DoD-Prime MDAP contract—corresponded to what we observed in the FAR clauses

appropriated by primes for incorporation into their Terms and Conditions. The results are shown in Table 6. We observed no clear misapplications in these data per our analysis.

Table 6. DFARS Clauses Flowed Down from Prime to Subcontractor via Primes' Terms and Conditions

	MDAP 1	MDAP 2	MDAP 3	MDAP 4	MDAP 5
Total	**28**	**48**	**17**	**46**	**5**
Mandatory	17 (61%)	22 (46%)	11 (65%)	26 (57%)	2 (40%)
Customary	6 (21%)	18 (38%)	3 (18%)	14 (30%)	2 (40%)
Neither Mandatory nor Customary	1 (4%)	4 (8%)	0	1 (2%)	1 (20%)
Solicitation Provisions	4 (14%)	4 (8%)	3 (18%)	5 (11%)	0
Misapplications*	**6 (21%)**	**4 (8%)**	**3 (18%)**	**5 (11%)**	**0**

*Flow-downs that appear to be administrative error or contract drafting oversight, not necessarily a clear misapplication.

Overall, we found that prime contractor misapplication of FAR/DFARS clauses occurs, but we did not observe clear misapplications of flow-down clauses. Quantitatively the noted misapplications appear small within this limited sample of first-tier subcontracts. Interactions with contracting departments of prime contractors during our research left an impression of highly skilled and experienced personnel who manage large volumes of contract work via standardization. We conclude that first-tier subcontractors experienced in defense work are likely to be equally expert in FAR/DFARS provision. Often prime contractors and their contracting organizations act as subcontractors themselves and carry this expertise into this role. As discussed elsewhere in the paper, the choice to become a government contractor appears to be a choice not taken lightly without some knowledge of the skills necessary to be a successful participant.

D. Flow-Down Clauses to Purchase of Commodity Items for MDAPs

The research team undertook a literature review of this specialized area and supplemented it with interviews of representatives of defense and commercial firms.[36] We found almost no academic/trade press commentary or discussion of the issue. Our understanding of this sub-section of the NDAA is that the Congress has two concerns: (1) regulatory burden on prime contractors that manage multiple MDAPs and use many common commercial items/components for the production of MDAPs, and/or (2) cases in which commercial firms sell same or very similar products to both government and

[36] Discussions with legislative and industry personnel indicated that the subject referenced in the NDAA refers to commercial items as defined in FAR 2.101.

commercial customers utilizing the same factories/product lines. As suggested by the title of this section, these items/components are not specifically designed for DoD and are readily available in the commercial marketplace.[37]

Through research and interactions with industry representatives—defense and commercial firms—we also encountered a complementary issue directly related to commodity items/components; i.e., the growth in the attendant FAR/DFARS flow-down clauses tied to the purchase of commercial items/components.[38] The policy of DoD is to encourage usage and incorporation of commercial items in MDAPs and other systems;[39] however, this policy may be undermined by expansion of applicable flow-down clauses to commercial items.

The concern is that flow-down provisions under these conditions distort commercial behaviors by adding administrative costs and burdens. A vivid illustration of this matter was provided by a representative of a commercial firm who does business with DoD and the US government (directly and as a subcontractor that supplies subsystems and key components to defense contractors).[40] The representative discussed this larger concern through an example involving aircraft engine turbine blades. These blades are commodity items purchased by the firm to produce aviation engines for both commercial and US government buyers, using the same factory and production line. DoD customers through FAR/DFARS cost accounting standards (CAS)[41] require documentation of lot/purchase price (or cost) of blade lots/quantities used in the governmental supplied product. The apparent original presumption of the government CAS was that all its purchased non-commercial items were custom-built for DoD and each part was purchased for the specific item of delivery. Thus, compliance with CAS is mandatory.

Instead the reality of practice at this commercial firm is that these blades are commingled with the same blades used for commercial sales that the firm purchases in

---

[37] Such items are purchased by DoD under the broad rubric of "commercial item." Commercial items are defined in FAR 2.101. Commercial-off-the-shelf (COTS) and Government off-the-shelf (GOTS)/Non-developmental items (NDI) are subsets of or related to commercial items but are not synonymous. A comprehensive review of commercial items and interpretation can be found in Office of the Secretary of Defense (Acquisition, Technology, and Logistics (Acquisition Initiatives)), *Commercial Item Handbook (Version 2.0)*, September 2011 (draft).

[38] See FAR 52.212-5 Contract Terms and Conditions Required to Implement Statutes or Executive Orders – Commercial Items.

[39] OSD(AT&L), *Commercial Item Handbook (Version 2.0)*.

[40] The US firm is a publicly listed and global manufacturer and part of the US defense industrial base, but is not a prime/major defense contractor. Approximately 10 percent of its revenues (billions) are derived from direct/indirect sales to the US government.

[41] 48 CFR Chapter 99.

bulk based upon expected future market conditions.[42] Thus, the inventory of blades is sourced from a number of vendors and the primary usage is for end-products sold to the commercial sector. The commercial sector purchases the final product on price and is not concerned with the cost of components used to build the end product; therefore, the firm does expend resources to track the cost of individual component lots but, instead, focuses on price competitiveness for its products. In contrast, DoD, through the Truth in Negotiations Act/CAS, is focused on cost reporting and the incumbent systems, processes, and personnel required to collect, synthesize, and report such data to DoD.

The general implication that can be derived from this illustration is that many commercial accounting/inventory practices are not geared to the assumptions of FAR/CAS. If strict compliance is maintained, it is very possible that DoD could pay more for final products if the contractors accept these CAS provisions to separately purchase[43] and segregate items and parts exclusively for DoD/government purchase.[44]

The regulatory requirements may have the unintended consequence of hindering or shrinking the defense industrial base. Interviews with small/medium manufacturers suggested that regulatory-driven overhead costs often make them uncompetitive in the wider commercial market, and this impacts decision making on whether to remain or enter the DoD market. The firms must add certain expenses;[45] however, they are too small to segregate costs into DoD and non-DoD lines of businesses. The larger overhead expenses make their commercial item product prices uncompetitive.

These conditions again segregate DoD as a unique consumer with special demands manifested administratively and technically. Avoiding exactly this situation was the purpose of the DoD acquisition reforms of the 1990s with their emphasis on commercial purchases. In regard to this particular issue, this congressional inquiry may be very slightly tempered by the FY 2017 NDAA's legislative relief for commingled items.[46]

Nonetheless, the core regulatory issues persist and are compounded by FAR/DFARS flow-down requirements on commercial items. The Aerospace Industries Association

---

[42] The premise is that the firm achieves the best component price by buying in bulk versus spot market purchases.

[43] Separate purchases for DoD purposes may eliminate bulk buying advantages.

[44] Segregation of items/parts will result in higher costs for storage, inventory management, and electronic databases/tracking systems.

[45] One medium-sized manufacturer noted that FAR/DFARS requirements for dedicated facilities security and cybersecurity drove costs to such an extent that it lost contracts in non-DoD markets.

[46] Section 877 of FY 2017 NDAA provides that items valued at less than $10,000 that are purchased by a contractor for use in the performance of multiple contracts with DoD and other parties, and are not identifiable to any particular contract, shall be treated as a commercial item.

(AIA) Preliminary Study on Commercial Items indicates there were 16 clauses required for government purchase in 2001. The study reports now that there is a maximum of 142 possible clauses in 2017. Of these 142 maximum possible clauses, AIA determined 38 clauses originated in statute and 76 came via EO or oversight councils.[47]

E. Unnecessary Burdens from Non-Statutory Flow-Down Clauses

A premise of the NDAA is that many extraneous FAR/DFARS clauses have their origins in EOs and are thus easier to be modified, amended, or countermanded by subsequent EOs.[48] The focus of this section is on "unnecessary" flow-down clauses—unnecessary defined as clauses that do not affect the end product (MDAP). In other words, these are clauses that are noteworthy in promoting valid national policy needs but have no direct relation to the development, production, or use of the MDAP weapon system. For example, an EO mandating that subcontractors only utilize vending machines in break rooms that accept dollar coins may have a legitimate government purpose, but the purpose is effectively unrelated to the MDAP.[49]

We leveraged one MDAP prime contract to obtain preliminary or directional information on "unnecessary" burdens created by EOs. An examination and analysis of this prime contract revealed 14 clauses based on EOs, of which 10 were mandatory. We determined that all of the mandatory clauses were unnecessary burdens. The data are summarized in Table 7.

---

[47] Material provided by a representative of a commercial firm with membership in the AIA. Subsequently reported in Jason Miller, "114 new commercial buying regs since 2009 highlights why federal procurement needs fixing," Federal News Radio, May 8, 2017, https://federalnewsradio.com/reporters-notebook-jason-miller/2017/05/114-new-commercial-buying-regs-since-2009-highlights-why-federal-procurement-needs-fixing/.

[48] Our understanding was gained through conversations with DPAP and members of the House Armed Services Committee to gain insight on congressional motivation for this topic.

[49] Neal S. Wolin, "Reducing the Surplus Dollar Coin Inventory, Saving Taxpayer Dollars," U.S. Department of the Treasury/Treasury Notes, December 13, 2011, accessed August 25, 2017.

Table 7. One Subcontract's Clauses Associated with Executive Orders

	FAR	DFARS
Total Clauses in Subcontract	97	88
Traced to EO	**14**	**0**
Mandatory per EO	**10**	**0**

While all the mandatory clauses directly touch upon important policy considerations for the US government, none appears to directly affect the end product (MDAP) or its performance. The clauses are shown in Table 8.

Table 8. Mandatory Flow-Downs Created per Executive Order

US Government Prime MDAP Flow-Down	
52-209-06	"Protecting the Government's Interest when Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment"
52.219-08	"Utilization of Small Business Concerns"
52.219-09	"Small Business Subcontracting Plan"
52.222-21	"Prohibition of Segregated Facilities"
52.222-26	"Equal Opportunity"
52.222-36	"Affirmative Action for Workers with Disabilities"
52.222-50	"Combating Trafficking in Persons"
52.223-18	"Encouraging Contractor Policies to Ban Text Messaging while Driving"
52.225-13	"Restrictions on Certain Foreign Purchases"
Prime Terms and Conditions Flow-Down	
52.222-54	"Employment Eligibility Verification"

Based upon our research and consultation with governmental and industry personnel, we hypothesize that the number of clauses derived from EOs (and US government/DoD internal initiative) is greater than the number shown in this one sample. A comprehensive origin tracing of all FAR/DFARS clauses would be beneficial to legislators and executive branch policy makers.[50]

[50] We examined commercial database products and consulted with the Defense Acquisition Regulations System, and determined that the effort to trace FAR/DFARS clauses to source was beyond the resources of this project.

F. Impact of Flow-Down Clauses on Participation Rate of Subcontractors

This section seeks to characterize the effects of FAR/DFARS flow-down provisions on selected defense acquisition subcontractors.[51] The 2017 NDAA appears to suggest that sub-contractor participation rates could vary inversely with the regulatory burden[52] of flow-down clauses. It specifically seeks to determine if flow-down provisions reduce the participation rates of selected types of subcontractors on MDAPs. The basis of our research was a review of current literature supplemented by discussions with government and industry personnel.

How and why a DoD prime contractor selects their subcontractors is highly relevant to understanding the participation issue. It may vary with DoD's encouragement and emphasis. It may vary with the internal technical competencies of the primes themselves, or the relative competencies of the candidate small businesses. There may be other explanations. Overall, subcontractor participation in DoD MDAPs is a complicated issue of which FAR/DFARS flow-down provisions are just one factor. The remainder of this section examines participation rate and FAR/DFARS flow-down provisions in this wider context.

The wider issue evident in the NDAA is the concern that the technology of future military advantage is increasingly emanating from commercial industry sectors wider than the ordinary defense industrial base. Specifically, the concern is that a new set of military advantages is developing beyond the research and development (R&D) directed by the US government and DoD. In its review of the 2017 NDAA, the Senate Armed Services Committee (SASC) stated, "DOD has struggled to tap into the technological advancements that are increasingly being driven not by large defense contractors, but by commercial technology firms that generally choose not to do business with the DOD." The SASC stated it believes these firms have been generally deterred by the unique demands of the defense acquisition system, including acting as subcontractors, in light of FAR/DFARS flow-down provisions.[53]

---

51 *Selected subcontractors* here means the specific list identified in section 887(a)(6) of the 2017 NDAA: "small businesses, contractors for commercial items, non-traditional defense contractors, universities, and not-for-profit research organizations." The complementary list of "non-selected" types of subcontractors logically should include at least existing major defense contractors.

52 *Regulatory burden* in this context means cost and time spent on compliance with FAR/DFARS. This is inclusive of tracking, training personnel, maintaining databases, ensuring subcontractors/vendors are in compliance, etc.

53 U.S. Senate Armed Services Committee, "Reforming the Defense Acquisition System," in *NDAA FY17 Bill Summary*, 5, accessed April 10, 2017, https://www.armed-services.senate.gov/imo/media/doc/FY17%20NDAA%20Bill%20Summary.pdf.

Small businesses are one type of selected subcontractors that the NDAA identified as an area of concern. Small businesses represent the vast majority of business types[54] in the United States, and each year DoD sets small business participation goals to act both as prime contractors and subcontractors. Whether a small business participates in DoD contracting as a prime contractor or as a subcontractor, both are subject to potentially burdensome FAR/DFARS clauses. Of these two choices for small businesses, prime contractors will be most completely exposed to a potential FAR/DFARS burden, while subcontractors might either be somewhat shielded by the prime (due to statutory or regulatory language) or alternatively subject to a complete flow-down. In this sense, small business contractors—acting either as a prime or subcontractor—represent a useful special case to help understand the FAR/DFARS clause impact.

DoD reported that its participation rate goals for small business prime contractors have been increasing since FY 2011 (as reflected in percentage of total dollars). Over the last 12 years, the actual participation rates have never dropped below 89 percent of the specified DoD goal; nevertheless, the participation rates shown in Figure 4 are relatively modest. On a prime contract such as an MDAP, the small business participation objective is generally only about one in five. Despite this, DoD failed to meet these modest goals for eight successive years between FY 2006 and FY 2013.[55]

While prime contractor participation by small businesses (as reflected in percentage of dollar value of total awards) has grown modestly in recent years (after declining to flat growth since 2003),[56] small business subcontracting participation rates with DoD (as reflected in percentage of total subcontract awards) have declined modestly since 2003. The DoD small business subcontract award data are shown in Figure 5.[57]

---

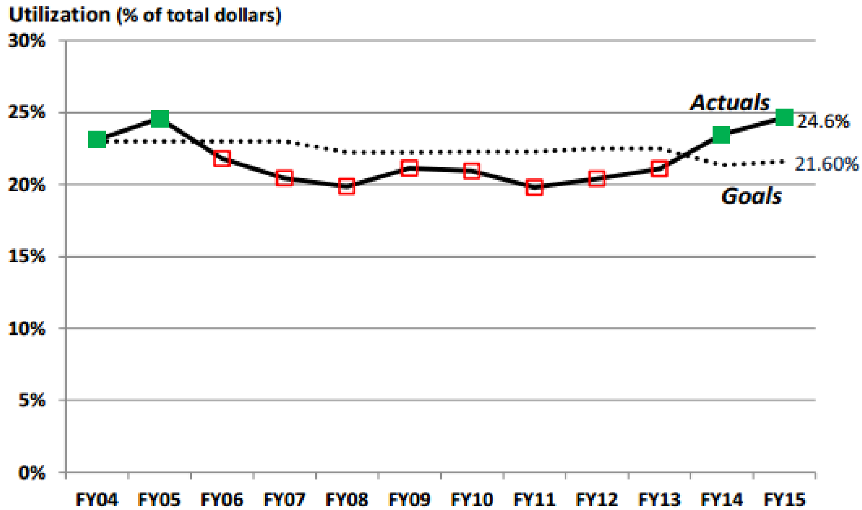
54 See SBA Office of Advocacy, "Frequently Asked Questions," September 2012, https://www.sba.gov /sites/default/files/FAQ_Sept_2012.pdf.

55 *Performance of the Defense Acquisition System: 2016 Annual Report* (Washington, DC: Under Secretary of Defense, Acquisition, Technology, and Logistics (USD[AT&L]), October 2016), http://www.acq.osd.mil/fo/docs/Performance-of-Defense-Acquisition-System-2016.pdf, xliii.

56 DoD Office of Small Business Programs, http://www.acq.osd.mil/osbp/statistics /sbPerformanceHistory.shtml.

57 Ibid.

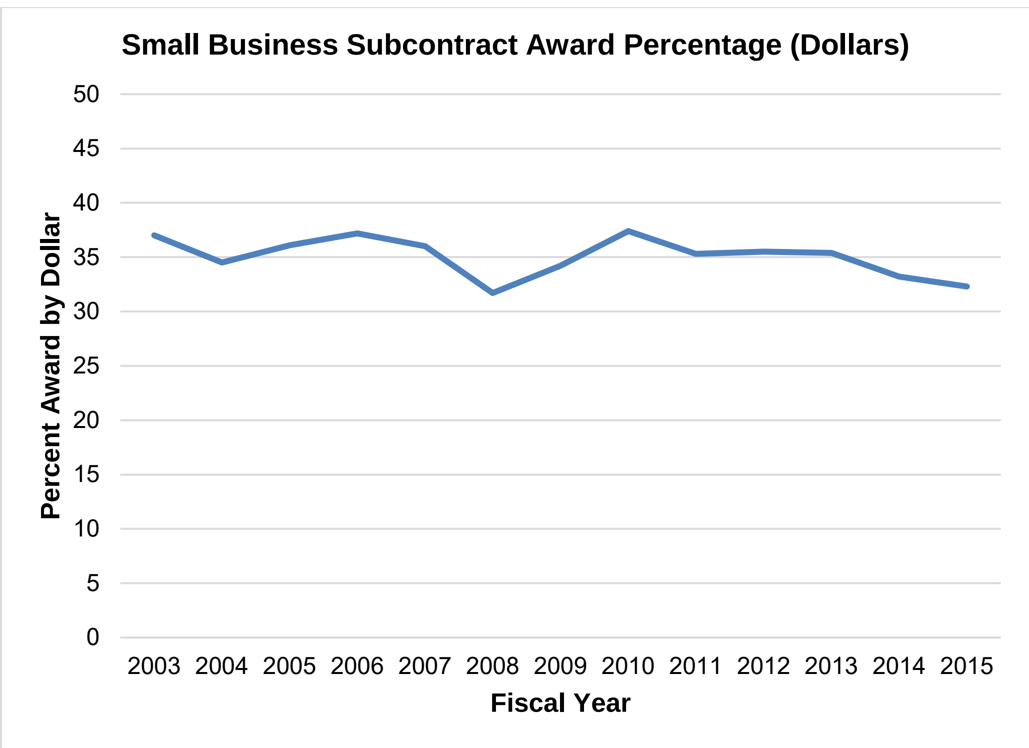
Figure H-14. Small-Business Prime Contracting Utilization Trends: Goals and Actuals (FY 2001–FY 2015)



NOTE: Closed green squares indicate that the goal for that fiscal year was achieved; open red squares indicate that the goal was not achieved.

Source: USD(AT&L), *Performance of the Defense Acquisition System – 2016 Annual Report*, pg xl.

Figure 4. Prime Contracting Goals and Actuals for Small Businesses



Source: DoD Office of Small Business Programs, accessed May 23, 2017, http://www.acq.osd.mil/osbp /statistics/sbPerformanceHistory.shtml.

Figure 5. DoD Small Business Subcontract Award Percentage (Dollars)

As the SASC indicated, this specific question of flow-down provisions is a subset of the wider question of administrative burden on all defense and government contractors, not just small businesses. To do business with any agency within the US government, as previously discussed, a broad range of specific data must be shared, information formats must be completed, and compliances and certifications must be achieved. DoD MDAPs and other major DoD and federal contracts are large—routinely several volumes—and their administration requires an extensive commitment of individuals on the part of both government and industry. The specific administrative burdens DoD imposes on its commercial partners represent an issue of fairly wide study and commentary. In contrast, the specific issue of flow-down clauses for subcontractors is only occasionally touched on in the literature and incompletely examined.

In general, administrative burden represents a cost of doing business with DoD and the wider US government. Ordinarily, cost is associated with a contractor or vendor; it is an attribute of the product to be purchased by the government. In contrast, FAR/DFARS provisions represent conditions or information the government expects from its contractors in addition to the production of the contracted service or good. These requirements are not useless—they assist DoD in its responsibilities to the US taxpayer, and they seek to avoid fraud, malfeasance, and waste. However, they do require the prime federal contractor to achieve certifications and share information in a way that distinguishes these contracts from almost any other type of commercial exchange. These provisions clearly represent an additional cost to both the prime providers of federally procured products and—in the case of flow-down provisions—to the prime's subcontractors. By placing these costs on commercial vendors for selected purchases, they add costs that may be subtracted from ordinary profit margins and inherently disincentivize participation.

To do business directly or indirectly with DoD and the US government, contractors must often must make a conscious addition to their overhead costs to administer the FAR/DFARS required provisions: US government and DoD contracting expertise must be recruited, internal accounting practices must be modified, and hiring and reporting provisions must be implemented. The provisions are complicated enough that they compete for the attention of the owner-entrepreneur of a small business, often anecdotally consuming large fractions of their time. Under these conditions, owners may choose to finance specialized positions within their organization to manage federal flow-down contract provisions. This essentially becomes an element of overhead if the business owner plans to systematically seek DoD and US government contracts now and in the future—in effect, it becomes a part of the cost basis for products produced for the prime contractor.

This requirement for firms to configure themselves for DoD and government contracting effectively creates the situation feared by the NDAA: firms often must make a strategic decision to become a DoD subcontractor. It is not a casual decision. The requirements are unusual and distinctive from ordinary commercial contracting.

Essentially, FAR/DFARS flow-down requirements serve to make DoD and the US government a unique customer for all but the simplest commercial items. The imposed costs codified in the FAR/DFARS provisions can effectively raise costs for government purchases. These additional imposed costs may be charged back to the government in the form of higher prices, particularly if the firm is not required by the circumstances of the contract to trim its prices. In effect, the additional costs of FAR/DFARS flow-down provisions may frequently be paid for by the government itself in terms of higher prices.[58]

Our independent research was recently validated in a Government Accountability Office (GAO) report concerning DoD acquisitions and challenges in attracting non-traditional firms to do business with DoD.[59] This GAO report is noteworthy in that the same major deterrence factors—in addition to regulatory burden and compliance—are universally expressed by government and private sector members of the US defense industrial base. The report noted the variety of factors affecting participation—with FAR/DFARS clauses being one.[60] We found the same major factors affected participation/non-participation decision making for small businesses and contractors for commercial items.[61]

In the literature reviews and interviews, we did not come across indications that FAR/DFARS flow-down clauses affected participation rates among universities and not-for-profit research organizations. The input we received suggested that such organizations have specialized their management and infrastructure in order to obtain US government/DoD funding.

For the reasons discussed above, we conclude FAR/DFARS clauses do have an impact on the participation rate for selected potential subcontractors—in particular, small businesses, non-traditional defense contractors, and contractors for commercial items. The quantification of the impact of FAR/DFARS clauses on participation rates is unknown and will require a larger primary study to gather data. Any study should include an examination of the rates of participation and cost of compliance. Considering the executive and

---

[58] Interviews with firms that do business with DoD and non-DoD government entities suggest some costs cannot be passed on to the commercial sector; thus, profit margins may be negatively affected.

[59] GAO, "MILITARY ACQUISITIONS: DOD is Taking Steps to Address Challenges Faced by Certain Companies," GAO-17-644, July 2017, http://www.gao.gov/assets/690/686012.pdf.

[60] Ibid. Other major factors identified by GAO and uncovered by IDA in preparing this report were (1) the complexity of DoD's acquisition process, (2) an unstable budget environment, (3) a lengthy contracting timeline, (4) an inexperienced DoD contracting workforce, and (5) intellectual property rights concerns. The cost of regulatory compliance was also addressed as part of US government/DoD contract clauses.

[61] In Section 3.D of this paper we discuss one global commercial firm that sells approximately 10 percent of its products to DoD or DoD primes (commercial items/components). The firm representative stated if the current regulatory burden (FAR/DFARS clauses) existed 10–15 years ago when it entered the US government/DoD market space, it very likely may have made a strategic decision to not participate.

legislative branch attention on improving the DoD acquisition and contracting systems, such primary research is deemed of very high importance.

G. Flow-Down Clauses and DoD's Access to Advanced Research and Technology Capabilities for MDAPs

The issue of access to advanced research and technology capabilities is in some ways a closely related or associated special case of the same issues discussed in the preceding section concerning impact of flow-down clauses on participation rates of certain types of organizations in DoD contracts. Once again, the apparent question from the Congress is the impact of flow-down clauses on these specific types of firms—in this case, firms with innovative technologies or capabilities—that focus on the commercial sector.

On a point not directly discussed in the previous section is the role of prime contractors in recruiting specific types of subcontractors. Since prime contractors are in active competition for large DoD contracts, they are often more likely to recognize problems faster than DoD does. The current business model of prime contractor is to form teams in order to deliver solutions that meet DoD needs with the prime as the integrator of systems and technologies. A successful MDAP bidder will be held responsible for failing to deliver technological solutions for key weapon systems.

We discussed this perspective with a limited set of prime contractor personnel, and identified a general sense that the current subcontracting regimes allow sufficient flexibility to recruit necessary subcontractor technology through a variety of contractual and business arrangements. However, these contracting delivery teams are often specialized in DoD work and may not be achieving the most advanced or cost-effective technological solutions—that is, they may be re-inventing technologies and capabilities that could be obtained in the commercial market.

In contrast, we received comments from DoD's Defense Innovation Unit (Experimental) (DIUx)[62] that many technology firms in the commercial sector are either unaware of DoD needs or are aware of the potential for business with DoD but refuse to contend with the obstacles identified in the participation subsection. These comments echo the fears of the Congress; the widely reported 2014 withdrawal of the Google-owned Schaft Robot from a Defense Advanced Research Projects Agency (DARPA) competition helps to support these concerns.[63] Google is reported to avoid military contracts by corporate

[62] Defense Innovation Unit Experimental, https://www.diux.mil/. DIUx was established to build relationships with commercial firms that have not previously done business with DoD in order to obtain advanced technologies that may meet DoD needs. The goal is to avoid the current acquisition cycle and rapidly prototype concepts and deliver them to the Services.

[63] Graham Templeton, "Google finally proves it won't pursue military contracts, pulls leading robot from DARPA competition," Extremetech.com, July 1, 2014, accessed July 5, 2017,

policy. The Schaft robot was a leading design in the DARPA competition when Google purchased its parent company and then partially withdrew from the competition.

In this same vein is the commentary of the former Chief Operating Officer (COO) of the Boston company, iRobot, who indicated he was advised the company should leave the defense business because its participation was holding down its stock price. This again highlights the wider set of underlying economic decisions behind participation in DoD contracts. iRobot completed the sale of its defense unit in 2016. It chose to leave defense work to concentrate on expanding its line of consumer robots, particularly its successful line of robotic kitchen mops and sweepers. This choice is unlikely to expose it to cutting-edge requirements for new robotic technology, but it is a rational economic decision. A faction of iRobot shareholders advocated this sale believing, "this [total shareholder return] underperformance is primarily attributable to iRobot's continuing commitment to its unprofitable Defense… businesses."[64] The value of viewing this issue in an economic framework is that all issues such as contracting or flow-down clauses, or of allowable profit, are monetarized and consolidated into a single metric. The point here is that flow-down provisions can be seen as a contributing cost in a wider set of issues for government contracting.

Another important economic perspective on this issue is the possibility that DoD is no longer the dominant driving force in many of these areas of new technologies.[65] Even if DoD is allotted more funds for R&D, due to the many obstacles to doing business with DoD it is not clear that certain non-traditional contractors will participate. The choices described above for Google or iRobot suggest that many commercial markets are more lucrative than DoD work.

Government regulatory burden constitutes an additional potential cost placed on government contractors and thus demotes DoD in contractor preferences as a customer. If these companies can identify sufficient customers among many to satisfy their total profit

---

https://www.extremetech.com/extreme/185570-google-finally-proves-it-wont-pursue-military-contacts-pulls-leading-robot-from-darpa-competition; Michael Hoffman, "Google Rejects Military Funding in Robotics," March 25, 2014, accessed July 5, 2017, https://www.defensetech.org/2014/03/25/google-rejects-military-funding-in-robotics/.

64 Willem Mesdag, Managing Partner, Red Mountain Capital Partners LLC, letter to Colin Angle, Chairman of the Board and Chief Executive Officer [iRobot Corporation], January 25, 2016, https://www.sec.gov/Archives/edgar/data/1159167/000119312516436992/d74536dsc13da1.pdf. Linked access through Todd C. Frankel, "Why the maker of Roomba vacuums is getting out of the warbot business," February 11, 2016, accessed July 5, 2017, https://www.washingtonpost.com/news/the-switch/wp/2016/02/11/irobot-maker-of-roomba-vacuums-is-getting-out-of-the-warbot-business-where-it-all-began/?utm_term=.7e3a6ade9df2.

65 GAO, "MILITARY ACQUISITIONS: DOD is Taking Steps to Address Challenges Faced by Certain Companies," 6. DoD spending on R&D is relatively flat for the 1987–2013 period, and private sector R&D spending has skyrocketed. In 2013, DoD spent $75 billion, while the aggregate spending of US firms on R&D was $341 billion.

expectations, they will choose the customers yielding the greatest profit margin and serve others as an afterthought. In turn, competitors of these first-tier companies will pivot to service these second-tier customers. There is a sense within the NDAA that DoD has slipped into this category for certain types of technology: that DoD technical demands at best parallel other customers such as retail consumers and may even lag this standard, thus creating a rational condition of DoD as a second-best customer. This is a speculative hypothesis subject to future examination.

In interviewing DoD personnel, the current perception is that the barriers to doing business with DoD—including flow-down clauses—have not yet barred access to advanced technologies and capabilities. However, there are apparent costs and delays. We were informed of instances in which DoD R&D personnel seeking access to certain technologies must contract via a third party (e.g., a university or not-for-profit) to obtain the technology, as certain firms do not wish to deal with US government/DoD regulatory burdens. The cost then increases, as the third party takes a portion of the DoD R&D funds[66] as part of the arrangement and DoD faces delays in receiving the technology. We understand similar situations arise when MDAP primes that need to obtain certain technologies experience additional costs and delays.[67]

In summary on this issue, flow-down clauses have not yet created access problems with regard to advanced technology and capabilities. Nonetheless, flow-down clauses are yet another barrier (and an additional cost) to doing business with DoD—in particular with the growth of the FAR/DFARS over the years. The situation is not expected to improve at current trajectory and could plausibly hinder access to advanced technologies unless reforms and improvements are implemented. As with participation rates, we deem primary research into this area to be a very high priority.

---

[66] The IDA team was told that fee percentages range from 5 to 20 percent.

[67] Although outside of the scope of this paper, we understand that DoD prime contractors will use various legal mechanisms such as licensing agreements to obtain technologies. There are costs and delays associated with such actions.

4. Conclusion and Recommendations

A. Subcontractor Participation and DoD Access to Advanced Technologies for MDAPs

Cases exist in which commercial firms have strategically chosen not to pursue DoD business. Our research suggests that the inherent regulatory burden of FAR/DFARS flow-down clauses is one of several factors influencing subcontractor participation—and eventually DoD access to advanced research and technology. Other factors include profit potential, market size, funding stability, intellectual property, and the complexity and length of the DoD acquisition process. It is also clear that DoD is no longer the driving force for some advanced technologies associated with relatively lucrative commercial markets. Some innovative firms have chosen to pursue advanced technology and profits in these markets rather than engage in the complexities and lesser profits of DoD business—either directly as a prime or as a subcontractor. Removing unnecessary regulatory burdens—including flow-down clauses—can certainly assist in improving the DoD acquisition process, but further research is necessary.

B. Misapplication of Flow-Down Clauses

In order to quantify the impact of FAR/DFARS flow-down clauses, we compared five prime MDAP contracts with five corresponding subcontracts. In this sample, we found no widespread practice of burdensome flow-down misapplication. However, we did find administrative errors, measured at 1–10 percent of the total number of flow-down clauses. Aside from possible misapplication and error, the primary driver of flow-down clauses appears to be the ever-expanding size of the FAR/DFARS, along with prime contractors' attempts to manage their large number of subcontracts through rote standardization. As part of this larger issue, a certain number of flow-downs appear driven by defensive risk management on the part of DoD and its prime contractors.

C. Flow-Downs and Acquisition Success

All of the flow-downs appear to serve a purpose—but not necessarily related to the quality or performance of the MDAP or end-product.

A sample review of flow-down provisions specifically derived from Executive Orders (i.e., non-statutory) showed that none directly affected the end product (MDAP) or its performance. In this narrow sense, all were unnecessary to the specific purpose of the MDAP. All appeared to promote various national policy needs, but these specific clauses

did not have a direct relationship to the development, production, or use of the MDAP or other end product.

DoD policy is to encourage the use of commercial items in MDAPs and other programs; however, our general exploration of commercial items/commodity items in MDAPs and flow-down clauses suggests that regulatory burden even on commercial items appears to have increased, despite efforts to streamline their procurement. These general regulatory burdens may be countering DoD's commercial item policy.

There are no explicitly identifiable flow-down clauses related to MDAPs; rather, factual circumstances and regulatory interpretation determine their application. We also found that only a small fraction of FAR/DFARS clauses appear directly related to National Security—that is, securing military-technical advantages against espionage, criminal activity, or counterfeiting. In our research, this was the working definition of a national security FAR/DFARS clause, if the clause fell under these purposes. The remaining bulk of the clauses have economic, commercial, or administrative purposes but no direct relation to the performance of the end product.

D. Recommendations

Based upon our analysis, we recommend the following:

- Conduct primary research on non-participating firms that possess technologies of interest to DoD to understand incentives/disincentives, and propose legal and regulatory changes that may encourage their participation.
- Learn from Defense Innovation Unit (Experimental) (DIUx) experiences—including statutory and regulatory changes to incorporate insights.
- Per Executive Order (EO) 13777, cull FAR/DFARS of regulations that do not directly affect the quality and performance of the acquired product in order to reduce the volume of regulations and flow-downs.
- Analyze regulations in order to quantify costs to assist in reduction of FAR/ DFARS clauses.
- Restrict new regulations to those that can accelerate weapons development and production and achieve cost efficiencies.
- Monitor prime MDAP subcontracting on a select basis to detect changes in flow-down practices over time.
- Quantify the cost of regulatory burden associated with use of commercial items in MDAPs and other military products to better inform policy makers.

E. Summary

In summary, all of the above issues are intertwined and directly affect the cost, technical abilities, and scheduled deployment of DoD MDAPs or other end products. They should be analyzed and recommendations should be implemented as part of a wider DoD acquisition reform effort.

Appendix A.
FAR/DFARS Flow-Down Clauses Applicable to National Security

The Congress desired that FAR/DFARS clauses directly applicable to national security be identified. The approach used by the IDA team is described in Section 3.B of this paper. In general, the team established the following general categories and linked them with specific FAR/DFARS clauses: (1) superior military technology and its protection, (2) industrial security processes, and (3) prevention of deceptive business practices. The full background for the rationale is provided in Section 3.B.

FAR or DFARS Citation	Title	Issue Date
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	MAY 2014
52.203-7	Anti-Kickback Procedures	MAY 2014
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	MAY 2014
52.203-10	Price or Fee Adjustment for Illegal or Improper Activity	MAY 2014
52.203-11	Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions	SEP 2007
52.203-12	Limitation on Payments to Influence Certain Federal Transactions	OCT 2010
52.203-13	Contractor Code of Business Ethics and Conduct	OCT 2015
52.203-14	Display of Hotline Poster(s)	OCT 2015
52.203-15	Whistleblower Protections Under the American Recovery and Reinvestment Act of 2009	JUN 2010
52.203-16	Preventing Personal Conflicts of Interest	DEC 2011
52.203-17	Contractor Employee Whistleblower Rights and Requirement To Inform Employees of Whistleblower Rights	APR 2014
52.204-2	Security Requirements	AUG 1996
52.209-6	Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment	OCT 2015
52.211-5	Material Requirements	AUG 2000
52.211-6	Brand Name or Equal.	AUG 1999

FAR or DFARS Citation	Title	Issue Date
52.211-14	Notice of Priority Rating for National Defense, Emergency Preparedness, and Energy Program Use	APR 2008
52.211-15	Defense Priority and Allocation Requirements	APR 2008
52.211-16	Variation in Quantity	APR 1984
52.214-27	Price Reduction for Defective Certified Cost or Pricing Data-Modifications-Sealed Bidding	AUG 2011
52.223-7	Notice of Radioactive Materials	JAN 1997
52.236-5	Material and Workmanship	APR 1984
52.237-3	Continuity of Services	JAN 1991
52.246-1	Contractor Inspection Requirements	APR 1984
52.246-2	Inspection of Supplies - Fixed Price	AUG 1996
52.246-3	Inspection of Supplies - Cost-Reimbursement	MAY 2001
52.246-4	Inspection of Services - Fixed Price	AUG 1996
52.246-5	Inspection of Services - Cost Reimbursement	APR 1984
52.246-6	Inspection - Time-and-Material and Labor-Hours	MAY 2001
52.246-7	Inspection of Research and Development - Fixed Price	AUG 1996
52.246-8	Inspection of Research and Development - Cost Reimbursement	MAY 2001
52.246-9	Inspection of Research and Development (Short Form)	APR 1984
52.246-11	Higher-Level Contract Quality Requirement	DEC 2014
252.203-7001	Prohibition on Persons Convicted of Fraud or other Defense-Contract-Related Felonies	DEC 2008
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	SEP 2013
252.203-7004	Display of Hotline Posters	OCT 2016
252.203-7994	Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements - Representation (Deviation 2017-O0001)	NOV 2016
252.203-7995	Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements (Deviation 2017-O0001)	NOV 2016
252.203-7996	Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements - Representation (Deviation 2016-O0003)	OCT 2015
252.203-7997	Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements (Deviation 2016-O0003)	OCT 2015
252.203-7998	Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements—Representation. (Deviation 2015-O0010)	FEB 2015
252.203-7999	Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements. (Deviation 2015-O0010)	FEB 2015

FAR or DFARS Citation	Title	Issue Date
252.204-7000	Disclosure of Information	OCT 2016
252.204-7005	Oral Attestation of Security Responsibilities	NOV 2001
252.204-7008	Compliance with Safeguarding Covered Defense Information Controls	OCT 2016
252.204-7009	Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information	OCT 2016
252.204-7010	Requirement for Contractor to Notify DoD if the Contractor's Activities are Subject to Reporting Under the U.S.-International Atomic Energy Agency Additional Protocol	JAN 2009
252.204-7012	Safeguarding Covered Defense Information and Cyber Incident Reporting (Deviation 2016-O0001)	OCT 2016
252.209-7002	Disclosure of Ownership or Control by a Foreign Government	JUN 2010
252.209-7004	Subcontracting with Firms that are Owned or Controlled by the Government of a Country that is a State Sponsor of Terrorism	OCT 2015
252.209-7007	Prohibited Financial Interests for Lead System Integrators	JUL 2009
252.209-7008	Notice of Prohibition Relating to Organizational Conflict of Interest—Major Defense Acquisition Program	DEC 2010
252.216-7009	Allowability of Legal Costs Incurred in Connection With a Whistleblower Proceeding	SEP 2013
252.217-7026	Identification of Sources of Supply	NOV 1995
252.225-7993	Prohibition on Providing Funds to the Enemy (Deviation 2015-O0016)	SEP 2015
252.239-7017	Notice of Supply Chain Risk	NOV 2013
252.239-7018	Supply Chain Risk	OCT 2015
252.245-7002	Reporting Loss of Government Property	APR 2012
252.245-7003	Contractor Property Management System Administration	APR 2012
252.245-7004	Reporting, Reutilization, and Disposal	SEP 2016
252.246-7001	Warranty of Data	MAR 2014
252.246-7002	Warranty of Construction (Germany)	JUN 1997
252.246-7003	Notification of Potential Safety Issues	JUN 2013
252.246-7007	Contractor Counterfeit Electronic Part Detection and Avoidance System	AUG 2016
252.246-7008	Sources of Electronic Parts	OCT 2016

Appendix B.
Ad Hoc Classification of FAR/DFARS Clauses

This is an ad hoc analysis that attempts to break out the FAR/DFARS into general categories. It is not intended to be a comprehensive legal and policy analysis of the FAR/DFARS; instead, it is meant to provide a very high-level view of the FAR/DFARS broken out into a small group of categories.

The categories are:

- Contract Management: General contract logistics and execution
- Financial Management: Any clause involving cost data, payments, etc.
- National Security: Defined in Section 3.B
- Non-market forces (NMF): Restrictions on imports/exports; mandatory use of suppliers
- Socio-economic: Social policy goals

Figure B-1 displays a graphic representation of these categories by percent of total.

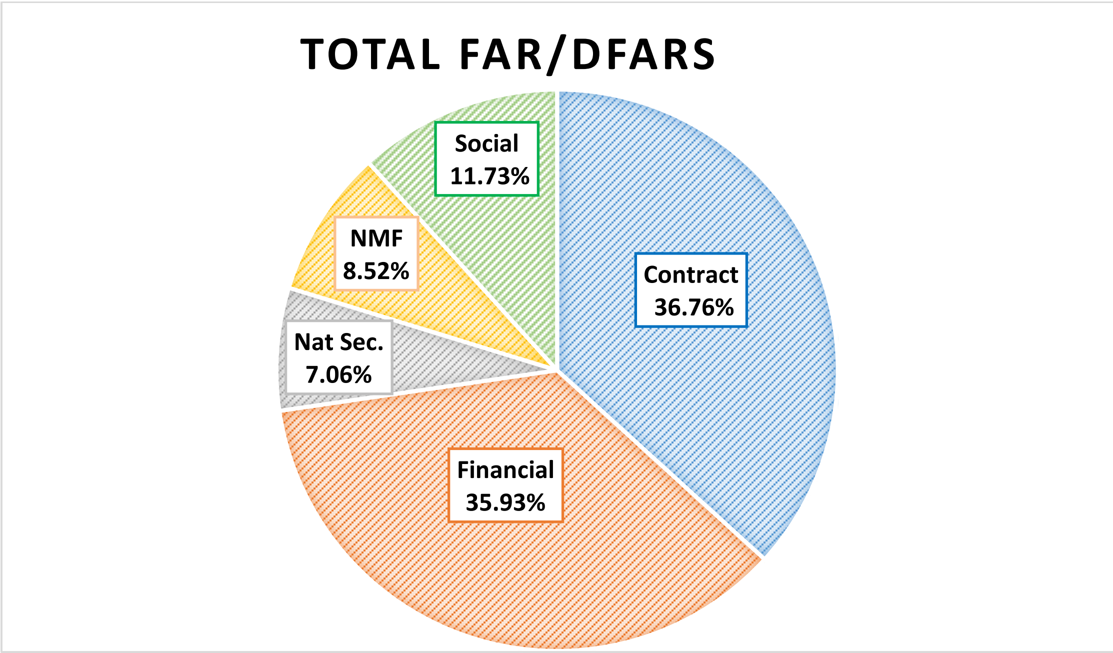


Figure B-1. Breakout of FAR/DFARS Clauses by Percent

Illustrations

Figures

Tables

References

10 U.SC. § 2371, Research projects: transactions other than contracts and grants as of Apr. 2, 2017.

Acquisition.gov. “Federal Acquisition Regulation (FAR).” https://www.acquisition.gov /browsefar.

CCH. Federal Acquisition Regulation as of January 1, 2017.

CCH. Department of Defense FAR Supplement as of January 1, 2017.

Cook, Cynthia R. “DIUx: Capturing Technological Innovation.” The RAND Blog, November 23, 2016. https://www.rand.org/blog/2016/11/diux-capturing-technological-innovation.html.

Dawson, John W., and John J. Seater. Federal Regulation and Aggregate Economic Growth. *Journal of Economic Growth* 18 (2013): 137–77.

Defense Innovation Unit (Experimental) (DIUx). “Commercial Solutions Opening (CSO).” White paper. Washington, DC: Office of the Secretary of Defense, Defense Innovation Unit (Experimental), undated. https://diux.mil/download/datasets/736 /DIUx-Commercial-Solutions-Opening-White-Paper.pdf.

DIUx. “Commercial Solutions Opening: How-to Guide.” Defense Innovation Unit Experimental), November 30, 2016. https://diux.mil/download/datasets/740 /CSOhowtoguide.pdf.

Defense Procurement Acquisition Policy (DPAP). “Defense Federal Acquisition Regulation Supplement (DFARS) and Procedures, Guidance, and Information PGI).” http://www.acq.osd.mil/dpap/dars/dfarspgi/current/.

DoD Dictionary of Military and Associated Terms, http://www.dtic.mil/doctrine /new_pubs/dictionary.pdf.

FCW: The Business of Federal Technology. The Lectern: Steve Kelman on Federal Acquisition and Innovation. “What are the real reasons small firms won’t sell to the government?” April 17, 2017.

Feldman, Steven W. *Government Contracts Guidebook*, 4th ed., 2008–2009. Toronto: Thomson Reuters, 2009.

Frankel, Todd C. “Why the maker of Roomba vacuums is getting out of the warbot business.” *Washington Post*, February 11, 2016. Accessed July 5, 2017, https://www.washingtonpost.com/news/the-switch/wp/2016/02/11/irobot-maker-of-roomba-vacuums-is-getting-out-of-the-warbot-business-where-it-all-began/?utm_term=.7e3a6ade9df2.

Gansler, Jacques S. *Affording Defense*. Cambridge, MA: The MIT Press, 1989.

Gansler, Jacques S. *Democracy's Arsenal: Creating a Twenty-First-Century Defense IndustryI.* Cambridge, MA: The MIT Press, 2011.

Ginman, Richard. *A Study of the Applicability of Federal Acquisition Regulation FAR) Clauses to Subcontracts under Prime Defense and NASA Contracts*. Arlington, VA: National Defense Industrial Association NDIA), 2016. http://www.ndia.org/issues/acquisition-reform/order-ndia-far-flowdown-book.

Government Accountability Office (GAO). "DEFENSE ACQUISITIONS: Additional Guidance Needed to Improve Visibility into the Structure and Management of Major Weapon System Subcontracts." GAO-11-61R. October 28, 2010 (draft). http://www.gao.gov/assets/100/97156.pdf.

GAO. "MILITARY ACQUISITIONS: DOD is Taking Steps to Address Challenges Faced by Certain Companies." GAO-17-644. July 2017. http://www.gao.gov/assets/690/686012.pdf.

Grammich, Clifford A., Thomas Edison, Nancy Y. Moore, and Edward G. Keating. "Small Business and Defense Acquisition: A Review of Policies and Current Practices." Santa Monica, CA: The RAND Corporation, 2011.

Hoffman, Michael. "Google Rejects Military Funding in Robotics." March 25, 2014, accessed July 5, 2017, https://www.defensetech.org/2014/03/25/google-rejects-military-funding-in-robotics/.

Hunter, Andrew, Gregory Sanders, Jesse Ellman, and Jacob Bell. *Analysis of Defense Products Contract Trends 1990–2014*. Washington, DC: Center for Strategic and International Studies CSIS), October 2015. https://csis-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/151020_Ellman_AnalysisDefenseProductsContractTrends1990-2014_Web.pdf.

Hunter, Andrew, Greg Sanders, Jesse Ellman, and Samantha Cohen. *Competition and Bidding Data as an Indicator of the Health of the U.S. Defense Industrial Base*. Washington, DC: CSIS, October 2015. https://csis-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/151020_Sanders_CompetitionBiddingDataIndicator_Web.pdf.

Hunter, Andrew, Gregory Sanders, Jesse Ellman, and Kaitlyn Johnson. *Federal Research and Development Contract Trends and Supporting the Industrial Base 2000–2015*. Lanham, MD: Rowman & Littlefield, September 2016. https://csis-prod.s3.amazonaws.com/s3fs-public/publication/160914_Ellman_FederalRDContractTrends_Web.pdf.

"iRobot Announces Closing of Defense & Security Business Sale to Arlington Capital Partners." *PRNewswire*, April 4, 2016.

Manuel, Kate M., L. Elaine Halchin, Erika K. Lunder, and Michelle D. Christensen. "The Federal Acquisition Regulation (FAR): Answers to Frequently Asked Questions." R42826. Washington, DC: Congressional Research Service, February 3, 2015. https://fas.org/sgp/crs/misc/R42826.pdf.

Meier, Luke. "Seeking Clarity on Managing Subcontractors." *National Defense* CI, No. 761 (April 2017): 14.

Mesdag, Willem, Managing Partner, Red Mountain Capital Partners LLC. Letter to Colin Angle, Chairman of the Board and Chief Executive Officer [iRobot Corporation], January 25, 2016, https://www.sec.gov/Archives/edgar/data/1159167 /000119312516436992/d74536dsc13da1.pdf.

Miller, Jason. "114 new commercial buying regs since 2009 highlights why federal procurement needs fixing." *Federal News Radio*, May 8, 2017. https://federalnewsradio.com/reporters-notebook-jason-miller/2017/05/114-new-commercial-buying-regs-since-2009-highlights-why-federal-procurement-needs-fixing/.

National Contract Management Association (NCMA). "Prime Contractor/Subcontractor Relationships: New Developments and Continuing Issues." PowerPoint presentation. William Weisberg and Joyce Tong Oelrich, July 2014. http://resources.ncmahq.org/chapters/greenville/Lists/Announcements/Attachments/20/NCMA%20-%20Prime%20and%20Sub%20Relationships.pdf.

New York University. Margins by Sector (US) as of 5 January 2017. Aswath Damodaran. http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/margin.html.

Office of the Secretary of Defense Acquisition, Technology, and Logistics Acquisition Initiatives)). *Commercial Item Handbook Version (2.0)*. September 2011 (draft).

Performance of the Defense Acquisition System: 2015 Annual Report. Washington, DC: Under Secretary of Defense, Acquisition, Technology, and Logistics (USD[AT&L]), September 2015. https://www.defense.gov/Portals/1/Documents /pubs/Performance-of-Defense-Acquisition-System-2015.pdf.

Performance of the Defense Acquisition System: 2016 Annual Report. Washington, DC: USD(AT&L), October 2016. http://www.acq.osd.mil/fo/docs/Performance-of-Defense-Acquisition-System-2016.pdf.

Peters, Gerhard, and John T. Woolley. "Executive Orders." The American Presidency Project. Santa Barbara, CA: University of California, Santa Barbara, 1999–2017. http://www.presidency.ucsb.edu/data/orders.php.

SBA Office of Advocacy. "Frequently Asked Questions." September 2012. https://www.sba.gov/sites/default/files/FAQ_Sept_2012.pdf.

Shapiro, Stephen B., Holly A. Roth, and J. Catherine Kunz. "FAR Subcontractor Flowdown Requirements: Negotiation Strategies for Primes and Subs Involved in Government Contracts." Strafford Webinar Presentation. June 29, 2010.

Templeton, Graham. "Google finally proves it won't pursue military contracts, pulls leading robot from DARPA competition." Extremetech.com. July 1, 2014. Accessed July 5, 2017. https://www.extremetech.com/extreme/185570-google-finally-proves-it-wont-pursue-military-contacts-pulls-leading-robot-from-darpa-competition.

Tomanelli, Steven N., ed. *Annotated Federal Acquisition Regulation Desk Reference, Volumes 1 and 2, Release 2016-2*. Toronto: Thomson Reuters, 2016.

U.S. Senate Armed Services Committee. "Reforming the Defense Acquisition System." in *NDAA FY17 Bill Summary*. Accessed April 10, 2017. https://www.armed-services.senate.gov/imo/media/doc/FY17%20NDAA%20Bill%20Summary.pdf.

Watkins/Meegan, [formerly] a division of CohnReznick. "The Christian Doctrine." PowerPoint presentation. Undated.

Wolin, Neal S. "Reducing the Surplus Dollar Coin Inventory, Saving Taxpayer Dollars." U.S. Department of the Treasury/Treasury Notes. December 13, 2011. Accessed August 25, 2017.

Abbreviations

AIA	Aerospace Industries Association
CAS	Cost Accounting Standards
CCH	Commerce Clearing House
CFR	Code of Federal Regulations
COO	Chief Operating Officer
COTS	Commercial-Off-the-Shelf
CRS	Congressional Research Service
DAMIR	Defense Acquisition Management Information Retrieval
DARPA	Defense Advanced Research Projects Agency
DFARS	Defense Federal Acquisition Regulation Supplement
DIUx	Defense Innovation Unit Experimental)
DoD	Department of Defense
EO	Executive Order
FAR	Federal Acquisition Regulation
FY	Fiscal Year
GAO	Government Accountability Office
GOTS	Government Off-the-Shelf
IDA	Institute for Defense Analyses
LMC	Lockheed Martin Corporation
MDAP	Major Defense Acquisition Program
NASA	National Aeronautics and Space Administration
NCMA	National Contract Management Association
NDA	Non-Disclosure Agreement
NDAA	National Defense Authorization Act
NDI	Non-Developmental Item
NDIA	National Defense Industry Association
PGI	Procedures, Guidance, and Information
R&D	Research and Development
SARA	Services Acquisition Reform Act
SASC	Senate Armed Services Committee
SBA	Small Business Administration

UCC	Uniform Commercial Code
US	United States
USDAT&L)	Under Secretary of Defense for Acquisition, Technology and Logistics
WSARA	Weapon Systems Acquisition Reform Act

REPORT DOCUMENTATION PAGE						*Form Approved* *OMB No. 0704-0188*

The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED *(From - To)*
xx-11-2017	Final	Mar - Dec 2017

4. TITLE AND SUBTITLE	
Report on Contractual Flow-Down Provisions in the Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS)	5a. CONTRACT NUMBER HQ0034-14-D-0001
	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S) Kaye, Mark, F. Cuda, Daniel, L. Wu, Kevin, Y.	5d. PROJECT NUMBER
	5e. TASK NUMBER AR-7-4284
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Institute for Defense Analyses 4850 Mark Center Drive Alexandria, VA 22311-1882	8. PERFORMING ORGANIZATION REPORT NUMBER IDA Paper P-8655 H 17-000453
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Office of the Secretary of Defense/Defense Procurement and Acquisition Policy The Pentagon, Room 5E621 3060 Defense Pentagon Washington DC 20301	10. SPONSOR/MONITOR'S ACRONYM(S) OSD/DPAP
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution is unlimited.

13. SUPPLEMENTARY NOTES

14. ABSTRACT

Section 887 of the National Defense Authorization Act (NDAA) for Fiscal Year 2017 directed the Secretary of Defense to conduct a study of contractual flow-down clauses related to major defense acquisition programs (MDAPs) and subcontractors. The MDAP data sample indicates no clear misapplication of flow-down clauses from prime contractors to subcontractors; however, the significant number of flow-down clauses reflects the voluminous nature of the Federal Acquisition Regulation (FAR) and Defense Federal Acquisition Regulation Supplement (DFARS). The existing and growing burden of regulatory compliance will reduce private sector participation in MDAPs, and the possibility exists that in the future, The Department of Defense may not have ready access to advanced technologies and capabilities for MDAPs that reside in the private sector due in part to this regulatory burden.

15. SUBJECT TERMS

Flow-down; FAR; DFARS; MDAP; subcontractors; small businesses; non-traditional defense contractors; advanced technology; defense industrial base

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			Snyder, Greg
Unclassified	Unclassified	Unclassified	Same as Report	54	19b. TELEPHONE NUMBER *(Include area code)* (703) 614-0719

Reset